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FREIGHT TRAFFIC SHIPPERS SEE UPTURN IN 1970

JAN 5 1970

December 22/29, 1969

RAILWAY AGE

THE TRANSPORTATION WEEKLY

The contrasts will be startling.

Today's railroad—and tomorrow's.

Today's disorganized transportation industry—and tomorrow's service-oriented, multimodal systems.

Today's fear of failure in transportation—and tomorrow's confidence in success.

There is a bit of a dream in all this—but there is also a deep-rooted conviction that tomorrow's transportation can be made to function as it has never functioned since

continued on page 27

TOMORROW'S RAILROADS

No. 12

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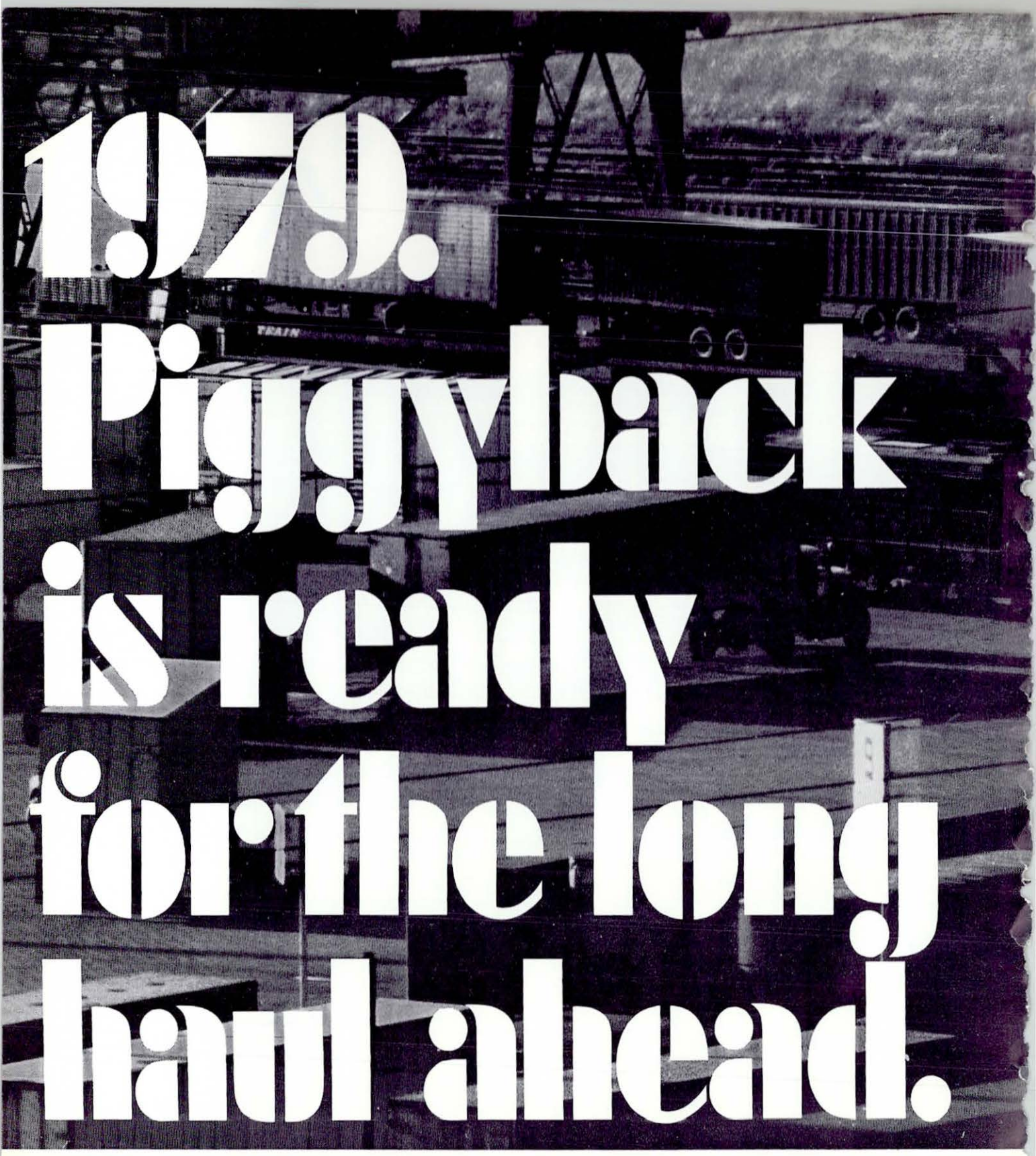

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In the next 10 years, there are going to be lots of explosions. Culture. Urban renewal. Freight hauling. To name three.

Because of the hundreds and hundreds of millions the railroads have spent over the last few years, and the millions more they're planning to spend, Piggyback is ready for the big boom in freight hauling.

To keep those truck trailers clickety clacking, Trailer Train Company adds more than 5,000 standardized flat cars to the railroad's fleet every year. To keep those massive containers shifting quickly, a swarm of giant straddle cranes. And to handle the swelling traffic, streamlined freight yards.

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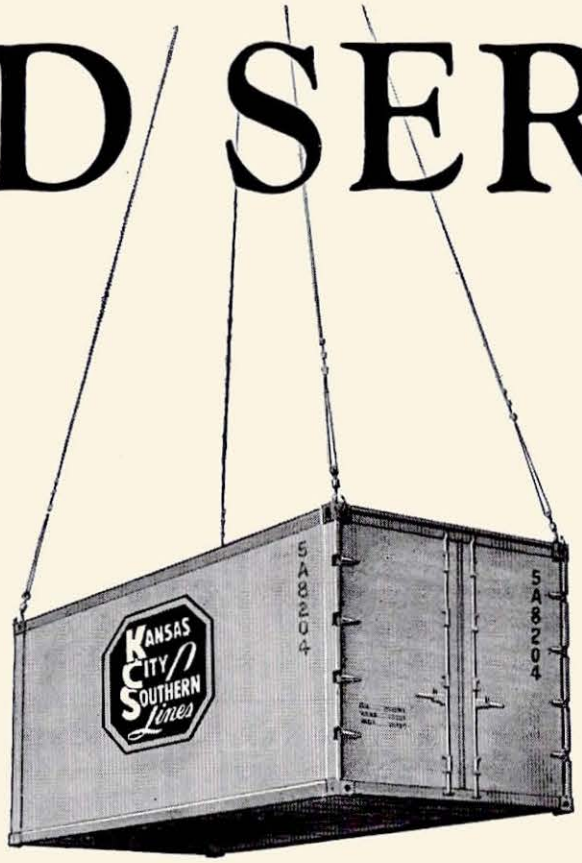

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If you import and export, and are using containers, you are in step with progress. You are serving your customers faster and more economically.

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If you are not, let us help you containerize. It's a great way to go. So is Kansas City Southern.

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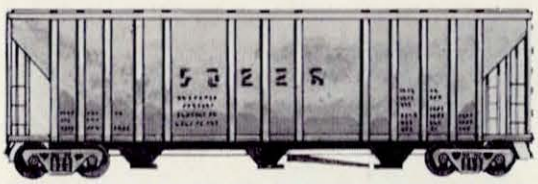
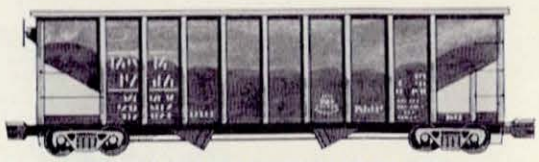


STEEL OR ALUMINUM COVERED HOPPER CAR



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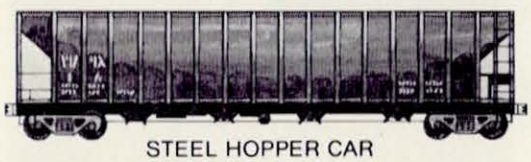

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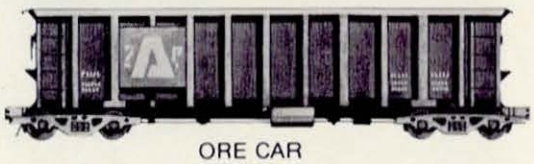

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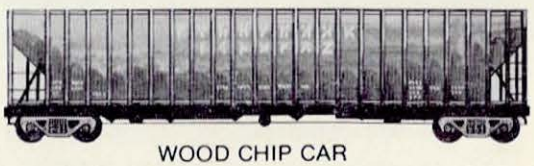
AIR DUMP CAR



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RAILWAY AGE

December 22/29, 1969 • Vol. 167, No. 24

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TOMORROW'S RAILROADS NO. 12

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New foam-insulated cars caused Coors to all-but-abandon trucks.

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. . . AND COMING NEXT WEEK

TOMORROW'S RAILROADS IN ACTION: Railway Age will welcome the new year with a new series of articles spotlighting what some carriers are already doing to create a new transportation capability. The first article in this series appears in the Jan. 5/12 issue, another two-in-one issue, which will be mailed Jan. 6.

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BURLINGTON INTRODUCES THE BEEF EXPRESS

High-speed train rushes meat East. Good news for all Midwest and East Coast beef eaters. The Burlington Railroad now brings you choice western beef faster and fresher than ever before.

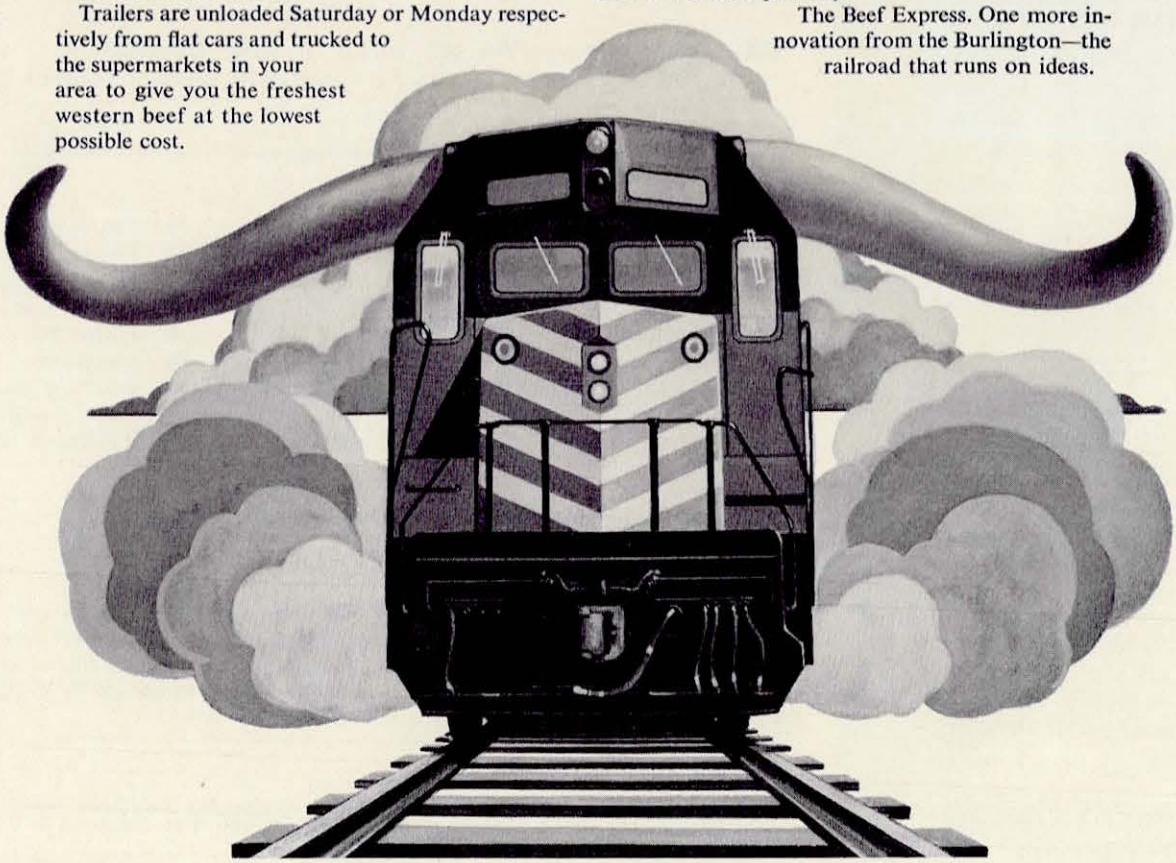
Every Friday, we load up to 6,000 head of dressed beef into new refrigerated trailers of our new piggyback meat train. With the beautiful Rocky Mountains as a backdrop, we start our fast run to the East —and your dinner table.

Trailers are unloaded Saturday or Monday respectively from flat cars and trucked to the supermarkets in your area to give you the freshest western beef at the lowest possible cost.

Fastest service ever, but no extra cost. The cost of launching this new piggyback beef speedster is about $5 million. It takes 300 specially designed refrigerated trailers, plus new ramps, new sidings, flat cars, special routes and schedules, and a whole team of specialists to do this big transportation job.

As a result, fresh beef reaches you fresher than ever. But our extra speed won't add a cent to the cost of the meat you buy.

The Beef Express. One more innovation from the Burlington—the railroad that runs on ideas.



Burlington Railroad

Circle 5 on coupon page 77

SHORT AND SIGNIFICANT

New England rails to seek rate arbitraries

New England railroads have notified the Traffic Executive Association-Eastern Railroads (TEA) that they "are taking independent action with intent to amend tariffs covering freight rates and applying from, to and within New England, by publishing arbitraries to be added to present rates." The arbitraries (which are subject to ICC approval) will amount to increased charges imposed on all line-haul traffic except bituminous coal, and potatoes from the state of Maine. The arbitraries will be 2½ cents per 100 pounds or 50 cents per ton with respect to rates expressed in the tariffs in terms of hundred-weight or ton. Where tariff rates are expressed in terms of cars, the arbitrary will amount to $20 if the car does not exceed 52-ft, 8-inches, and to $25 on longer cars. Tariff charges on piggyback traffic will be increased $12.50 where they are expressed on a per-trailer basis and $25 on a per-car basis. TEA's statement said: "Exhaustive studies by New England carriers . . . point to the need for improved physical plant including both roadway and rolling stock. . . . The amount of the arbitraries has been calculated as a mere minimum requirement to reach these objectives. . . ."

Youngstown and Thrall call off merger talks

Youngstown Steel Door and Thrall Car have dropped their plans for a merger. Arthur J. Doyle, president of Youngstown, and Richard L. Duchossois, president of Thrall, gave no reason for the move, but said that negotiations "have been terminated by mutual consent." Terms of an agreement-in-principle announced last summer called for Youngstown to acquire all outstanding Thrall stock (RA, July 14, p. 7).

Penn Central wins extension on N&W divestiture

At the request of Penn Central, the ICC has extended by five years—to Oct. 15, 1979—the period during which PC must dispose of its Norfolk & Western holdings. The extension was sought by Penn Central to accommodate a proposed issuance of Penn Central debentures and Pennsylvania Company stock. Both securities would be convertible into shares of Norfolk & Western stock over a ten-year period, and it is in this connection that the ICC granted the extension of divestiture time. In approving the N&W-Nickel Plate merger five years ago, the ICC required the Pennsylvania to relinquish all its N&W stock in 10 years.

CP subsidiary wants 490-mile coal pipeline

Canadian Pacific's wholly-owned subsidary, Cascade Pipe Line Ltd., will apply for a permit to build a 490-mile pipeline to carry British Columbia coal in slurry form from the Kootenay area to Roberts Bank. Preliminary timetable for this $200-million project calls for completion of engineering studies and right-of-way development during 1970-71.

A new series for 1970: "Tomorrow's Railroads in Action"

With the first issue of the new year, (Jan. 5/12) Railway Age will begin a new exploration of tomorrow—and the role railroads and transportation will play in tomorrow's world.

The Tomorrow's Railroads series this year set the stage—examining today's transport capability, projecting tomorrow's demands and suggesting broad approaches to the problem of transport improvement.

In the 1970 series—to be called Tomorrow's Railroads in Action—the Railway Age staff will be pinpointing excellence, exploring the kind of specific proposals and programs which will take today's railroads into tomorrow under a full head of steam.

Tomorrow's Railroads in Action will cover new proposals and programs in such areas as service, quality, technological improvement in plant and power and equipment, resources management, innovation in management techniques, progress in manpower development. The series will begin with the transportation market—and a trio of imaginative and innovative programs, designed for tomorrow and under way today.

MONDAY MORNING REPORT

1969: A YEAR OF MIXED BLESSINGS

Railroads this year have hauled more freight, for more dollars, than ever before in their history. But rising wages and operating costs kept net income far below even recent peaks, and the industry is ending the year with a rate of return of only about 2.6%.

THE STATISTICAL PICTURE AT A GLANCE

Preliminary AAR estimates put ton-miles at 765 billion for 1969, up nearly 3% over 1968. Revenues are estimated at $11.4 billion, an increase of 5%. But expenses and taxes also rose, from $10.2 billion to $10.7 billion. (Labor costs rose nearly 5% despite a 2% drop in employment). Net operating income is expected to total about $730 million, up from $678 million in 1968. As for net income, the AAR said that it will "show only a slight change from 1968's revised total of $569 million." (The post-war earnings peak was achieved in 1955, when $927 million was reported.)

FOR CAPITAL INVESTMENT, A SLIGHT RECOVERY

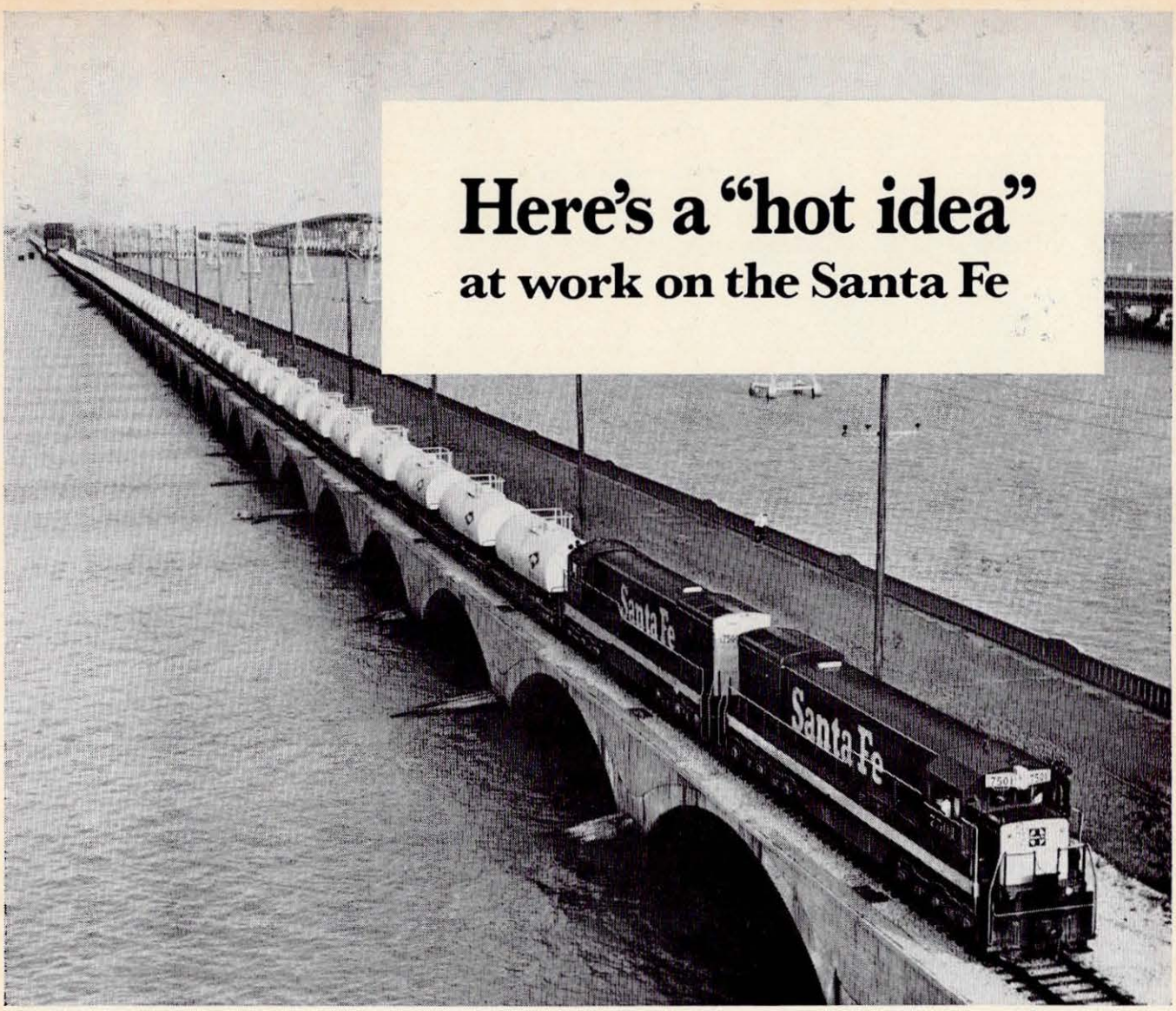
Despite low earnings, railroads increased capital expenditures this year to an estimated $1.4 billion—up from the $1.2 billion of 1968, but still substantially below the peak of $2 billion recorded in 1966. Major portions of the 1969 outlays went, as usual, for new equipment. Railroads and private car companies ordered more than 80,000 new and rebuilt freight cars, compared with 72,000 a year earlier.

PASSENGER PICTURE REMAINS GLOOMY

While freight business was enjoying a mild boom in 1969, the railroads' passenger business continued to decline. Passenger miles for the year are expected to total only 12.1 billion, down from 13.1 billion in 1969. Due to higher fares, however, passenger revenues will show only a slight drop from 1968's $444 million.

GOODFELLOW: "MOVING IN THE RIGHT DIRECTION"

AAR President Thomas M. Goodfellow, in a year-end statement, took a guarded look ahead: "Railroads have made a lot of progress during the last year. We're in a better position than we have been in years to meet the country's transportation needs. Admittedly, we've still got a lot of problems but we've begun moving in the right direction to improve them. The new decade will provide us with an opportunity for substantial growth."



Here's a "hot idea" at work on the Santa Fe

This train of 66 cars has a hot cargo of liquid sulphur heated to about 290 degrees Fahrenheit, and it has to travel 930 miles without cooling off.

It's a new idea for moving liquid sulphur from the new Duval mine in West Texas to the Port of Galveston. The sulphur is steamed to the proper degree of heat for loading into tank cars at their new plant in Rustler Springs, Texas and the train moves on precision schedule to reach Galveston while the sulphur is in its liquid state.

But this is not just a single train operation. While one train of 66 cars is being loaded at the Duval plant, another is enroute and a third is being unloaded at Galveston. Soon a fourth train will be added to this operation.

To make this hot line of sulphur work, Santa Fe spent millions of dollars constructing a new 30-mile railroad to reach the sulphur plant at Rustler Springs. We have added new power to our diesel fleet and worked with the Duval Corporation to develop a precision operation fitted to their distribution and marketing requirements.

Moving hot sulphur on a hot schedule is one of many ways Santa Fe provides up-to-date transportation by the carload, trainload, Piggy-Back trailer or container. And we move by rail, by highway and pipeline.

If you have a "hot idea" to fit your shipping needs, call Santa Fe. What we have done for companies like Duval, we can do for you.

Santa Fe Santa Fe

We helped build America. Now we keep it moving.

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Some railroads don't need our oil.

Your diesels need our oil.

Our tough, dependable Gascon diesel lubricating oils.

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Over ten billion miles!

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WEEK AT A GLANCE

Incentive plan boosts charges for ACI labeling

The amount railroads can charge for applying ACI labels to foreign-line cars will be increased by $5 per car effective Jan. 1, 1970, according to the AAR's Mechanical Division. Reason: to provide "an incentive to complete this program without fail on June 1, 1970."

The labeling program, which affects about 2 million units, had its deadline extended from Jan. 1 to June 1 in an October ruling by the Mechanical Division. As a result of the $5 incentive boost, charges for applying labels will be: $7.50 per label application direct to a car side, and $8.05 per side for trailers and containers. If mounting plates are used, charges will be $9.75 per car side, and $10.35 per side for trailers and containers. These new charges also reflect a slight increase—amounting to about 10 cents per label—previously planned for Jan. 1.

The Mechanical Division also announced a ruling that a car owner cannot refuse bills covering charges for application of ACI labels. Earlier, a number of roads had given notification that bills submitted for labeling of certain series of cars would not be honored.

Shopcraft wage pact rejected, talks to resume

At least one of the four shopcraft unions has turned down the wage/rules agreement reached earlier this month in post-strike deadline bargaining—and one rejection is all it takes to send the case back to the active-dispute stage. It was the Sheet Metal Workers' International Association that rejected the settlement; votes of the other three organizations were not announced. And, apparently, it was rules revision, not the wage deal, at which the union balked. Despite the unexpected action by SMWIA, however, it appears that the industry—and the nation—will get through the holidays without a crisis. New talks have been proposed for Jan. 6.

NP opens new $3.5 million intermodal terminal in Seattle

Northern Pacific is providing better service for a growing volume of TOFC/COFC traffic in the Pacific Northwest—thanks to construction of a $3.5-million freight-handling complex at South Seattle. The new intermodal terminal consolidates the work previously done by five smaller facilities scattered about the Seattle area. It's equipped with conventional circus-loading ramps, but the major loading/unloading operation is handled by a Piggypacker operating from a paved loading strip flanked by 100-car-capacity tracks. With the flexibility of side-loading/unloading, says NP General Manager J. O. Davies, "Ideally, we can have a trailer delivered to the customer's door an hour after the cars are set out." The terminal's location has also permitted improvement in line-haul operations: "We can make direct pickups and cuts from the mainline without taking the cars into our Seattle yards," Davies points out. "No switching is necessary."

GUS WELTY

LINES ON LABOR

"HAPPY NEW YEAR" is a phrase we all may get pretty tired of between now and Jan. 1. For the past couple of years, it has rung rather hollowly for railroad people, managers and employees alike. But this year—maybe—it's really going to mean something.

THE ETERNAL SEARCH is on—for something to be optimistic about. Believe it or not, in 1970, "something" may be found. Rail management and rail labor organizations may be able to get together to begin solving one of the industry's biggest problems: How to balance the employees' desire for more money and greater security against the railroads' need for greater flexibility in deploying and utilizing the work force.

THERE'S NO GUARANTEE that this kind of balancing act can be performed. There's no guarantee—but there is a strong feeling that both management and labor are ready to lay aside the old ways, which haven't worked, in favor of something new. The new year may not produce any great "breakthrough" in terms of measurable results. But 1970 has a good chance of producing a healthy start toward management/labor cooperation for mutual gain.

MAKE NO MISTAKE: If this kind of cooperation doesn't come about, and soon, there's going to be big trouble. And inevitably, the employee and his labor organization will be suffering, right along with the managers and the owners of the enterprise. Neither success nor failure touches just one party to a joint venture.

THERE IS A HINT of progress in the recent settlement negotiated with the shopcrafts. There is a similar hint in the quiet talks between Illinois Central and the United Transportation Union which have linked railroad gains to job improvement. There is still another hint in the decision to go to super-mediation in the fireman-manning case. These hints have to mean something.

THIS NEW YEAR won't lack for problems. Wage negotiations will be under way with just about every union representing rail employees. They won't be easily concluded. The fireman-manning dispute must still be settled. That won't be easy. Rules-revision will figure in just about every bargaining situation. And long-standing rules are not readily revised. Still, there is that belief that management and union representatives *are* ready to experiment, ready to explore new areas of management/union agreement. Wish them luck. And happy new year.

Auto train: Action on two fronts

The auto-train concept showed new and definite signs of life last week. The privately-backed Auto-Train Corp. broke a seven-month silence to announce, in a financial advertisement, that it had raised additional funds toward carrying out its previously announced aim—to "produce and operate trains designed to carry automobiles and their passengers over distances many consider too long to drive" (RA, May 5, p. 7). A spokesman declined to elaborate, but promised some "surprises" in the near future.

One surprise came quickly, and it was not related to the private company's announcement. In Washington, the Senate Appropriations Committee earmarked $1,040,000 for development, by the Federal Railroad Administration, of a prototype auto-carrying railroad car.

Most observers—including DOT people—had thought federal involvement in the project was dead. A few years ago the railroad "auto ferry" project, as it was then known, was a hot item in Washington and funds for development of service between Washington, D.C., and Jacksonville, Fla., appeared to be assured. But in mid-1967, Congress let it be known that it thought private enterprise should underwrite the project, and lopped off $3.5 million of the anticipated "auto ferry" appropriation. Ford Motor Co. did subsequently become interested in the project—and presumably still is. Meanwhile, in the spring of this year the formation of the Auto-Train Corp. was announced.

It now develops that $1,040,000 had been appropriated by Congress, but never used, DOT officials believing that Congress preferred it to be private enterprise all the way. This year DOT Secretary John A. Volpe asked for a clarification, and last week it came. The Senate Committee said it did, indeed, intend the $1,040,000 to be used for a prototype car (as opposed to the larger experimental operation previously proposed, and rejected in 1967). So the $1,040,000 is back in the FRA appropriation.

Where the federal government's work on this project would mesh with any private-industry work was not immediately clear last week.

Ford announced its own interest in the auto-train idea in February 1968, and undertook marketing and financial studies. Ford has no connection, as far as is known, with Auto-Train Corp.

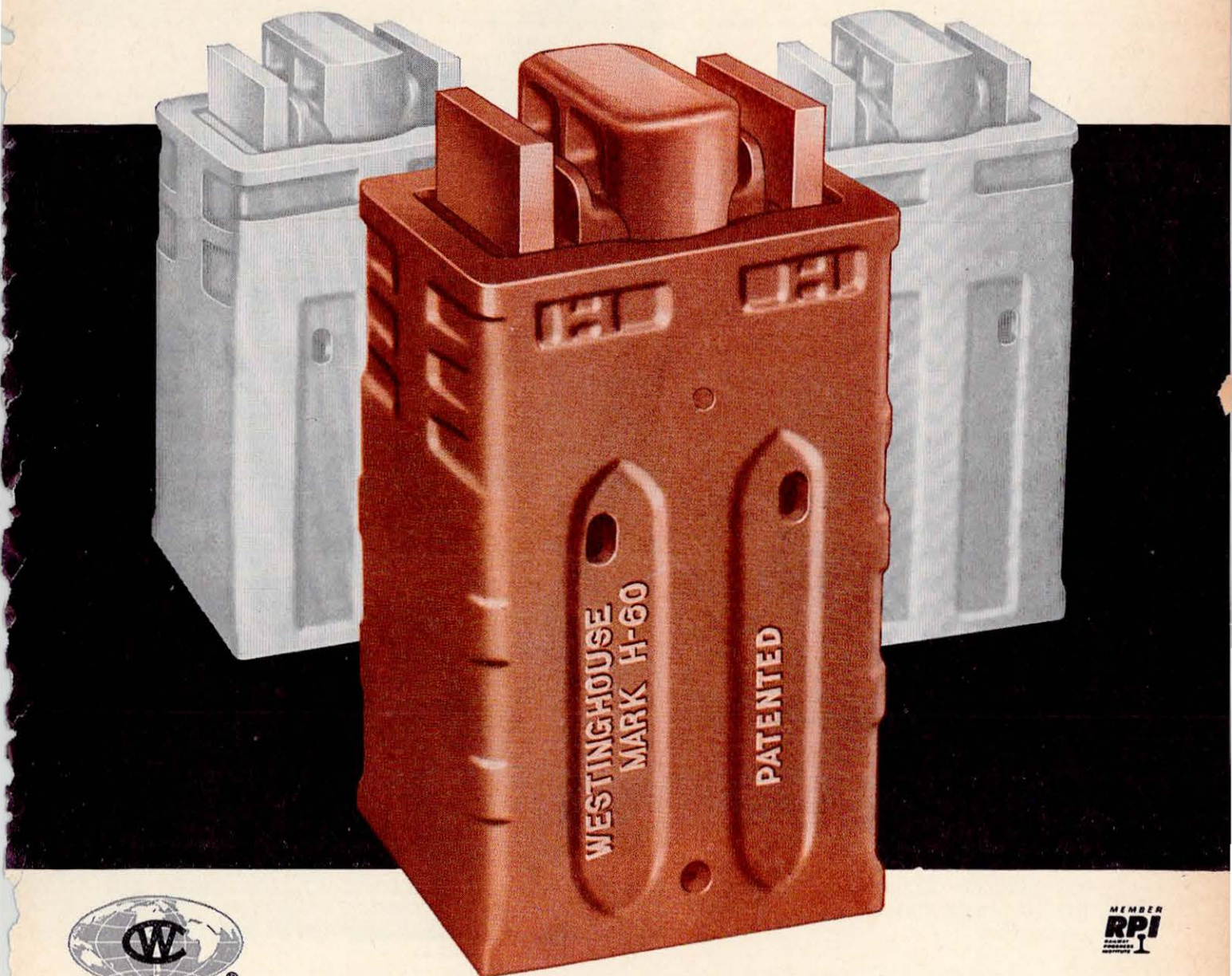
MARK H-60

THE 2-IN-1 GEAR

Six years ago—a challenge—How can one gear be made to do the work of two without an increase in size or travel? In two years, Cardwell Westinghouse Research and Development had the answer—the Mark H-60.

The H-60 has the equivalent energy absorbing capacity of *two* Mark 50 gears. This remarkable achievement in the science of draft gear engineering is accomplished by the addition of a hydraulic booster unit to the normal spring complement. The powerful hydraulic unit supplements the spring resistance to produce the multiplication of total draft gear capacity.

During the four-year period of varying service conditions, the H-60 established a dependable record along with its predecessors—the Mark 50 and Mark R-500. Will meet A.A.R. Specification M-901G. Applicable to all classes of cars with 24⅝ inch pockets. Tomorrow's draft gear is here today—Consider the H-60 as a must for cars 100-ton and over!



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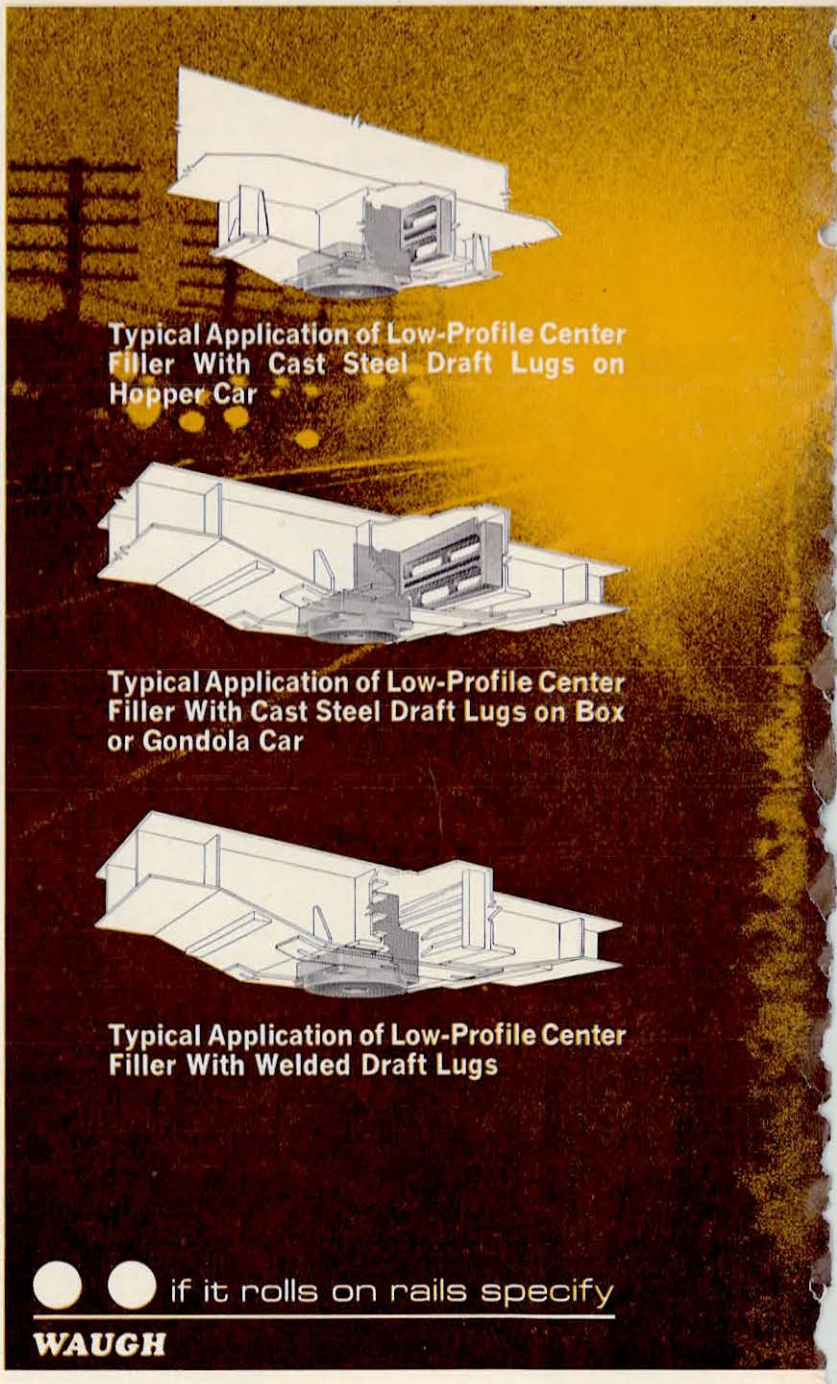
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if it rolls on rails specify
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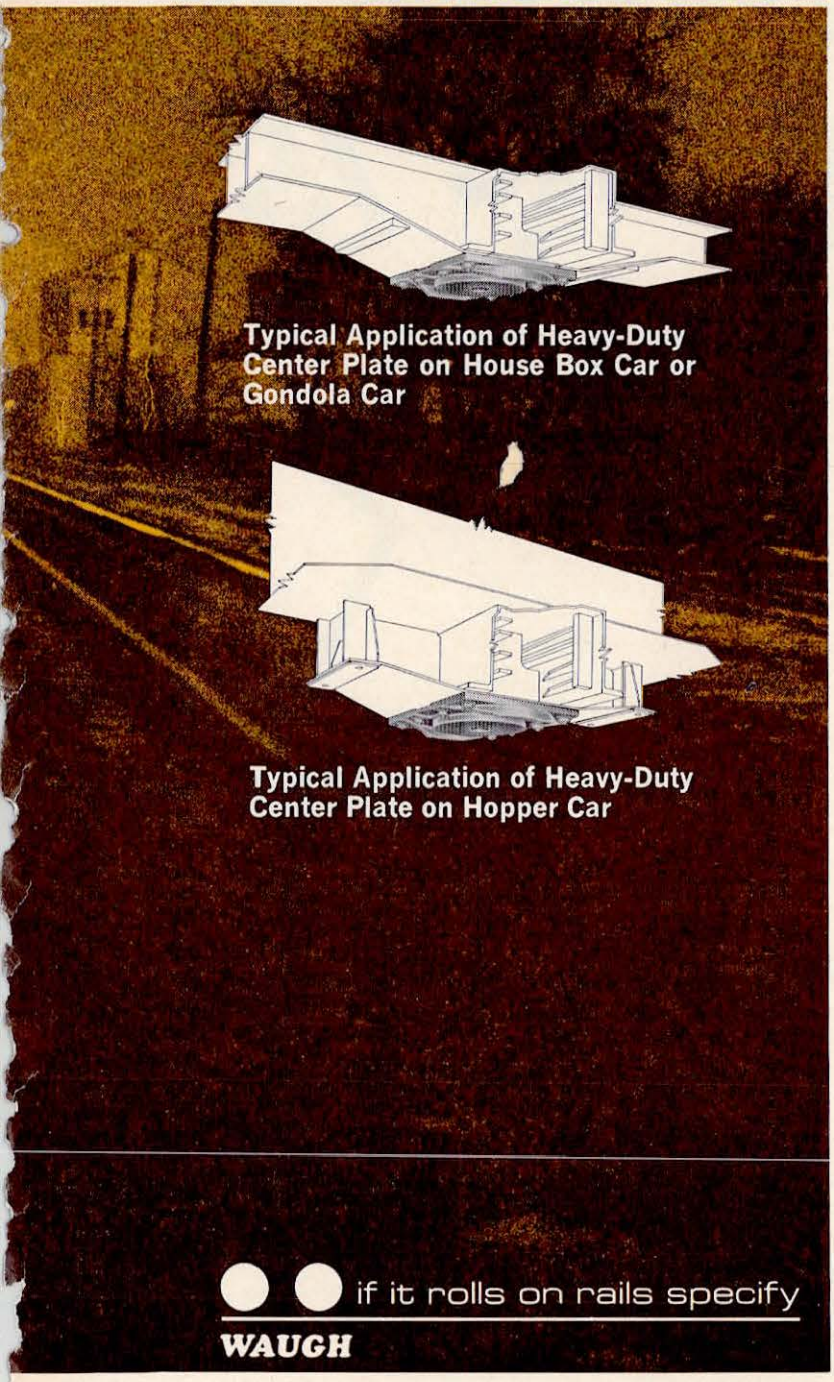
HEAVY-DUTY CENTER PLATE



Typical Application of Heavy-Duty Center Plate on House Box Car or Gondola Car

Typical Application of Heavy-Duty Center Plate on Hopper Car

if it rolls on rails specify

WAUGH

For Replacement of Conventional Types

Waugh's many years of innovative engineering has resulted in the development of a new Heavy-Duty, Extra-Strength Center Plate design. It is specifically designed as a replacement on conventional cars.

No matter what your needs, we can expertly meet exacting requirements—enabling you to more profitably meet today's increased service demands.

For complete technical information on the new Waugh Heavy-Duty Center Plate, contact:

MEMBER RPI RAILWAY PROGRESS INSTITUTE

DRESSER TRANSPORTATION EQUIPMENT DIVISION

Dresser Industries, Inc., 332 S. Michigan Ave., Chicago, Ill. 60604 • (312) 939-1280

Sales Offices: Atlanta • Baltimore • New York • Philadelphia • Roanoke • St. Louis • San Francisco
In Canada: W. K. Davidson, Sales Agency, Montreal

Circle 9 on coupon page 77

How come our warranty is the only one that looks

PARTS REPLACEMENT AGREEMENT

THIS AGREEMENT is between **THE TIMKEN ROLLER BEARING COMPANY** (hereinafter called the "Company") and _____ (hereinafter called the "Customer"), and is made effective _____ 19__.

In consideration of the purchase by the Customer, on or after the effective date of this Agreement, of Timken® "AP" bearings, for use on railroad freight car applications, the Company hereby agrees as follows:

1. On any Timken "AP" bearing assembly purchased by the Customer during the term of this Agreement for use on freight car applications, the Company will replace or repair, free of charge other than any applicable inspection or service charge otherwise payable and Customer's portion of transportation, any of the parts specified in paragraph 5 below which, within 84 months of the original date of manufacture etched or stamped on the bearing, are found to be in such condition as to require replacement or repair to comply with the standards set forth in the Roller Bearing Manual of the Association of American Railroads as of January 1, 1969. If cup or cone surfaces show evidence of Brinell or fatigue due to normal wear or loading, to the extent that they are not suitable for continued service under standards set forth in the Roller Bearing Manual, the inspection charge otherwise payable will also be waived. If the Roller Bearing Manual should require, or the Customer should specify, that certain parts of the bearing assembly be replaced when the bearing is reassembled, even though such parts are in good condition, the Customer will be charged for the replacement of such parts.

2. The provisions of paragraph 1 above shall also apply, subject only to the 84 months' limitation, to any Timken "AP" bearings purchased by the Customer prior to the effective date of this Agreement.

3. To qualify for replacement of parts under this Agreement, the following requirements must be met, to the best of the knowledge and belief of the Customer and to the satisfaction of the Company:
   a. The condition requiring replacement must be attributable to the quality of material or workmanship in the manufacture of the bearing, and must not be due to damage from detainment, fire, immersion in or exposure to water.
   b. The complete bearing assembly (less axle and cap assembly) including all parts as removed from the axle for inspection must be forwarded to the Company, P.o.b. Columbus, Ohio, fully assembled, and with suitable packaging and/or blocking to prevent damage in shipment and handling, within 84 months of the original date of manufacture, as specified above, with identification of the Customer by or for whom the bearing is being forwarded.
   c. The bearing assembly must have been in use on a freight car operated and maintained in accordance with loading and other rules and standards of the Association of American Railroads for cars in interchange service.
   d. There must not have been any modifications or alterations of the bearing assembly, unless authorized or existing by the Company, nor any improper repairs or any substitution in the bearing assembly of bearing components made by another manufacturer.

4. Following inspection and repair or replacement of parts in accordance with this Agreement, the complete bearing assembly (less axle and cap assembly) will be returned by the Company to the Customer, f.o.b. Columbus, Ohio, subject to such freight allowances as the Company may from time to time establish applicable to all customers of the same class.

5. The bearing parts which are covered by this Parts Replacement Agreement are the cones, cup, cone spacer, seals, seal wear rings, backing rings and vent fittings. Other parts of the bearing assembly, axle and cap, cap screws, locking plate and lubricant fitting, are covered by the warranty referred to in paragraph 6 below.

6. This Parts Replacement Agreement supplements the warranty set forth in the "Conditions of Acknowledgment and Acceptance of your Purchase Order," under which the bearings were originally sold by the Company to the Customer.

7. Except as provided in paragraph 3d above, this Parts Replacement Agreement will apply where the condition of parts requiring replacement or repair has been found upon inspection either by the Company, or by the Customer or any other person for the Customer prior to the forwarding of the complete bearing assembly to the Company in accordance with paragraph 3b above.

8. In the event of any dispute concerning the application of this Agreement, the decision of the Company will be final.

9. This Agreement is for a term of _____ months from and after the effective date, and may be extended for successive periods of twelve (12) months by notice in writing from the Company to the Customer 3 following the termination of this Agreement, any bearing assembly to which this Agreement became applicable during its initial term or any extension will continue to be eligible for replacement of parts in accordance with the provisions hereof.

IN WITNESS WHEREOF, the Company has executed and delivered this Agreement to the Customer as of the effective date specified above.

APPROVED:

THE TIMKEN ROLLER BEARING COMPANY

_____
General Manager - Sales or Assistant General Manager - Sales
Railroad Division
The Timken Roller Bearing Company

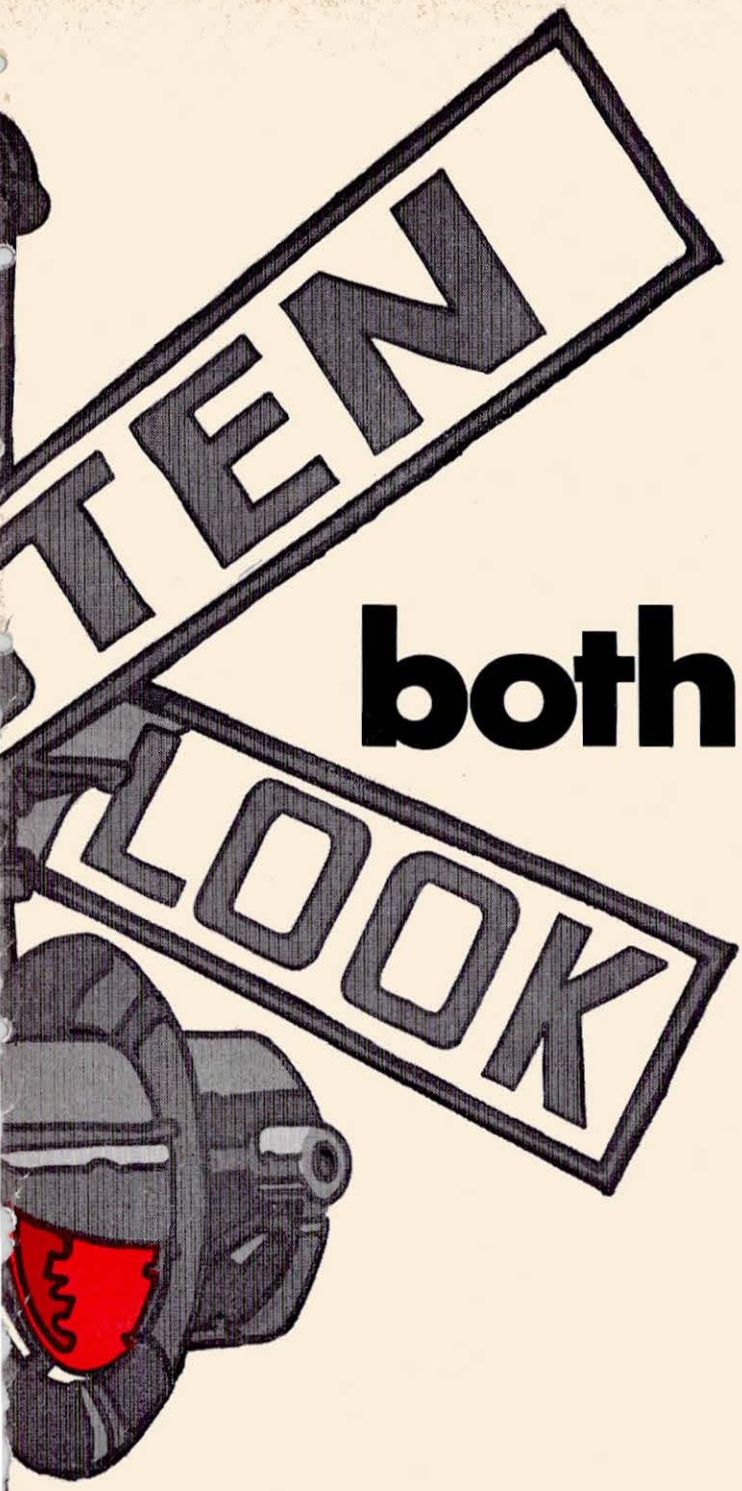
By _____
District Manager, Railroad Division

Our Parts Replacement Agreement keeps a watchful eye on the past, as well as on the future.

It protects Timken® "AP" bearings that are made today until 7 years from today. Like any good warranty should.

But it also covers every "AP" bearing made up to 7 years ago. Like no other warranty.

How can it? Because the "AP" bearings we made back then are as dependable as those we make now. Design, manufacture and quality control have



both ways?

always met the same high standards. Ever since we began manufacturing "AP" railroad bearings back in '54.

The Timken "AP" bearing Parts Replacement Agreement can promise you better bearing protection because it protects a better bearing.

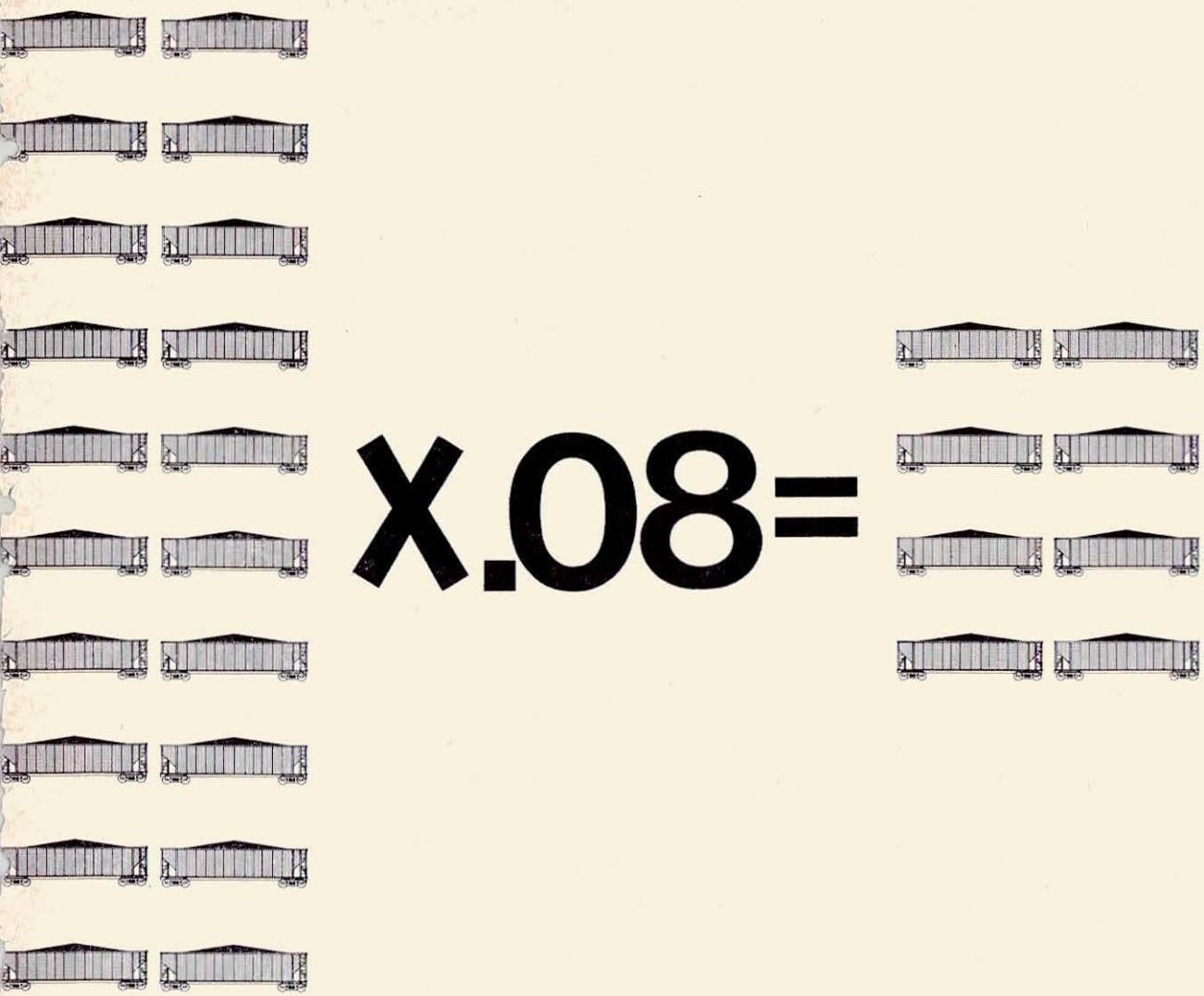
The Timken Roller Bearing Company, Canton, Ohio 44706. Timken bearings sold in 133 countries. Manufacturing in Australia, Brazil, Canada, England, France, South Africa and the United States.

TIMKEN®
REGISTERED TRADEMARK
TAPERED ROLLER BEARINGS

Circle 10 on coupon page 77

New math:
If one 100-ton aluminum coal car carries eight extra tons, how many additional carfuls could your aluminum-bodied unit train carry?

Multiply the number of cars by .08.



Aluminum coal cars deliver more payload profit because they carry more lading. For instance, you are a shipper of coal weighing an average of 45 lb per cu ft, and you're negotiating a freight rate on a carload basis. 100-ton aluminum cars weighing 263,000 lb gross have a rated capacity of 4,800 cu ft. Empty aluminum cars weigh 47,000 lb and carry 108 tons. A steel car weighs 63,000 lb and carries only 4,444 cu ft or 100 tons.

That means you would have approximately eight percent more capacity with aluminum cars, allowing you to haul the equivalent of eight carfuls more coal in a 100-car unit train. You could make fewer trips per year with the same number of cars. Or reduce the number of cars and make the same number of trips. Any way you do it, you lower operating expenses.

Just as important, aluminum has a much higher impact strength. Stands up better to racking strains, rotary dumping and the worst sulphur bearing coals. That's why there are Alcoa aluminum-bodied cars in coal service for 24 years still going strong.

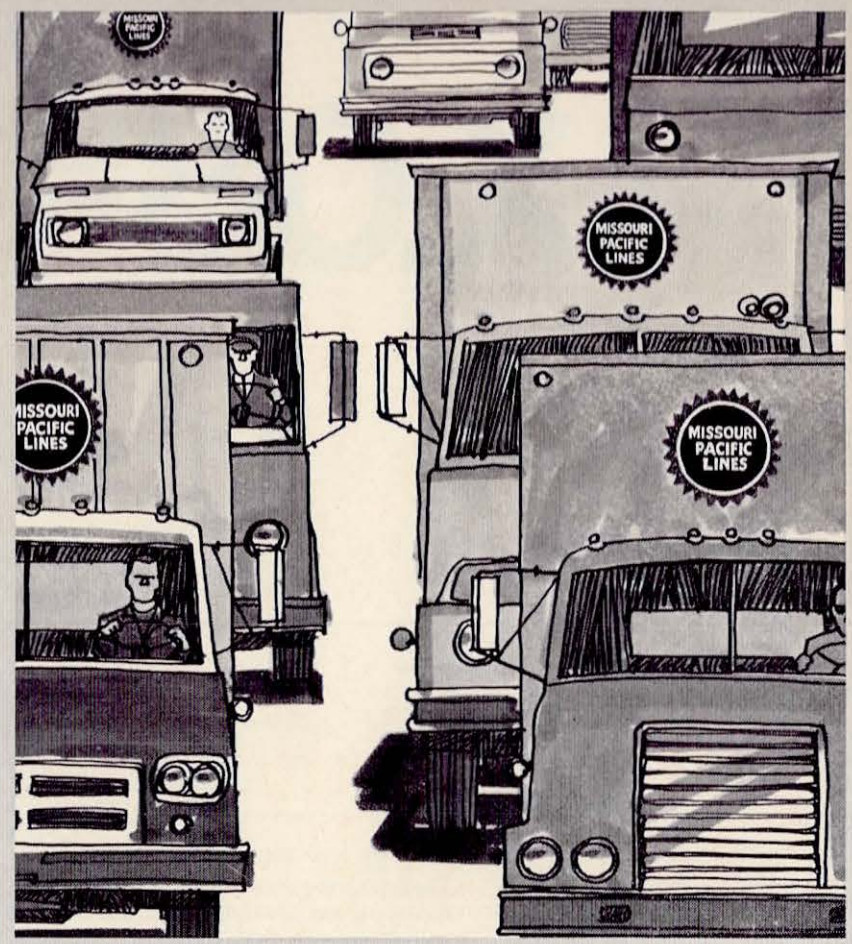
To find out more about aluminum-bodied cars, call on the people who know aluminum best. Contact your local Alcoa sales office.

Change for the better with Alcoa® Aluminum

ALCOA

Circle 11 on coupon page 77

How to have a multi-million dollar truck fleet... debt free!



No need to penalize net profits with a private truck fleet whose costs multiply with each unit added. More and more distribution men are finding that they can get full, flexible transportation with MoPac Piggyback at a fraction of the cost of maintaining a complement of company-owned rolling stock.

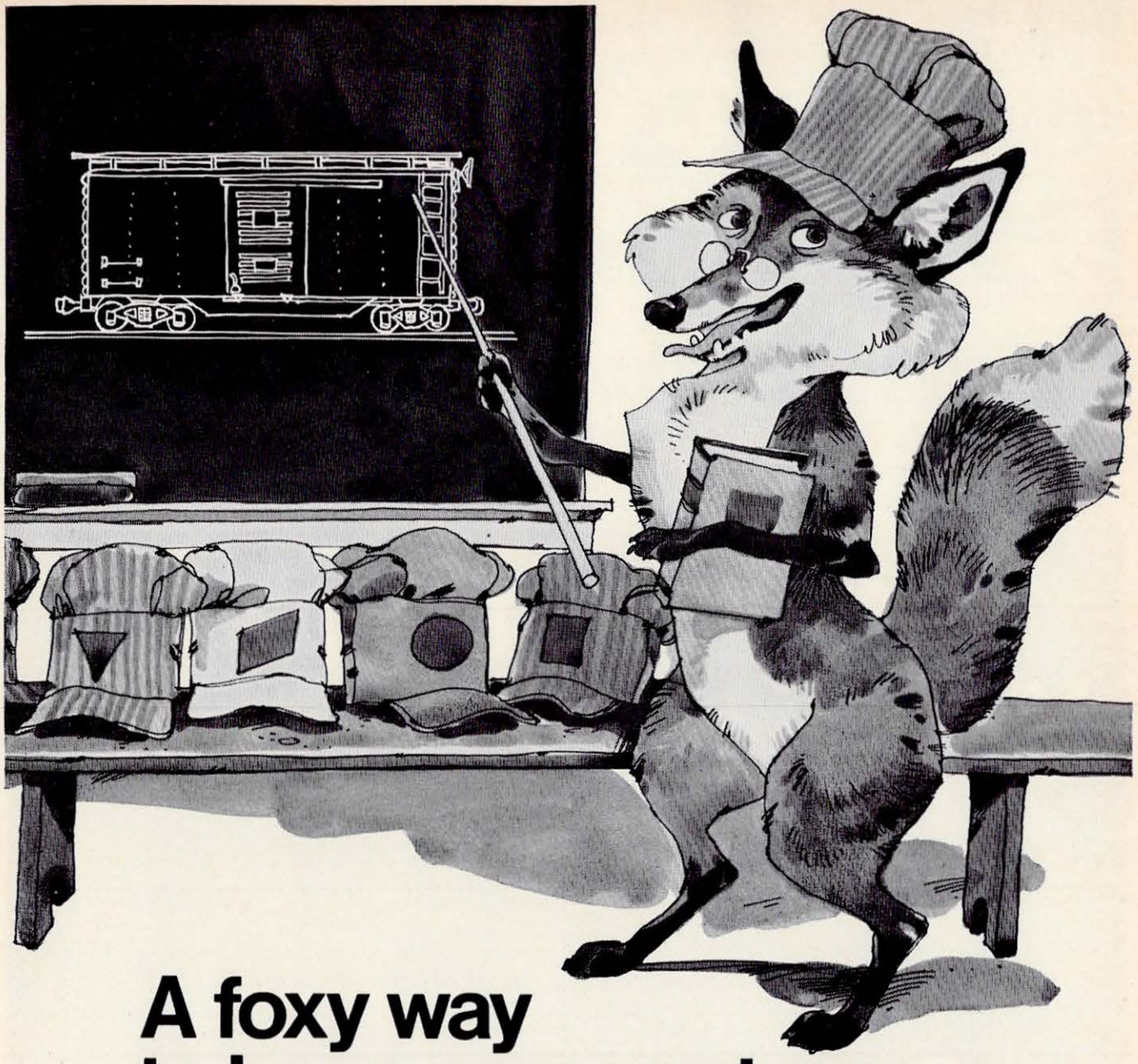
Take our Piggyback Plan II½, for example. That's where you use our trailers, load them and bring to our ramp. We transport them by rail to your destination where you arrange for local pick-up and delivery.

It's just one of six Piggyback Plans that can be customized to your particular need and free you of part, or all, of the responsibilities of fleet ownership. We have the equipment . . . 3,700 units that include everything from city pick-up and delivery trucks to brawny over-the-road diesels with high cube trailers. And we have the coverage . . . 29,000 miles of rail/truck routes in 12 Mid-America states.

So why be stuck with fleet problems when you're not in the trucking business? Check with us and let's get down to brass tacks on fleet operation costs . . . yours vs. ours. We think you'll be pleasantly surprised at how much sense it makes to let MoPac move it.

mo-pac
MISSOURI PACIFIC TEXAS & PACIFIC

Circle 12 on coupon page 77



A foxy way to keep your customers shipping by rail

There's no need to lose shippers just because they require specialized cars that are not in your fleet.

Be foxy. Call in North American Car.

Just as we've done so many times in the past, we are daily helping shippers reach rail solutions to new or special distribution problems. These solutions result in our investments in specialized rail equipment to roll on your rails.

We are the innovators of new concepts in rail shipping, and we're busy promoting more new types of cars for the immediate future. So there's every chance that we have right now, or can get, just the specialized cars your shippers need.

Consider, too, the economics of one of our specialized cars versus two or more box cars or gondolas. The larger capacity and greater utilization of innovative North American cars returns you more annual payload per car, faster turnaround through faster, easier loading and unloading, and more car loadings.

When you call in North American Car you add a no-overhead partner to your selling team, because we team up with you to fill your customer's specialized needs . . . and to help you keep him sold on shipping by rail.

North American Car Corporation, 77 South Wacker Drive, Chicago, Illinois 60606.

NORTH AMERICAN

MEMBER RPI RAILWAY PROGRESS INSTITUTE

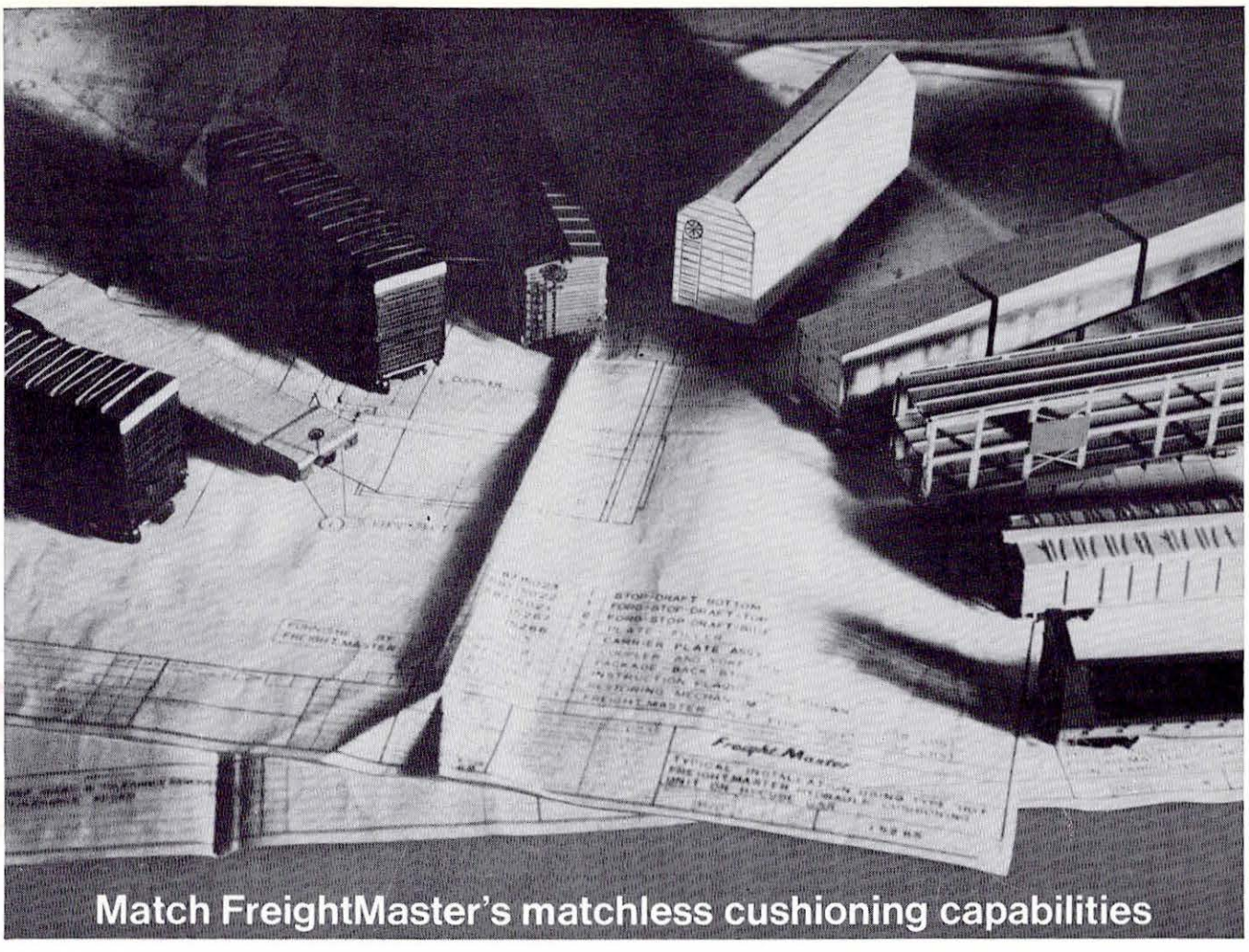
Circle 13 on coupon page 77

'New math' multiplies IC freight cars for shippers

The shortage of freight cars causes America's shippers their severest headache. It seems there are never enough freight cars available to bring goods to market. Now IC has tackled the problem with its own brand of "new math" by multiplying dollars, computers and brainy people. *Dollars* buy new cars, 13,880 in four years. *Computers* automate a control department that keeps cars working so fast they can handle more than 100,000 extra loads annually. *Brainy people* think up off-beat operating techniques for meeting critical car shortages. IC believes in taking loads off shippers' minds. If you want to know more, write or phone Ed Kreyling, our traffic VP, at 135 E. 11th Place, Chicago, Ill. 60605 Area Code 312 922-4811.

Illinois Central Railroad — *an IC Industries company*

Circle 14 on coupon page 77



to today's almost endless variety of modern freight cars.

Today's vast variety of specialized cars steps-up the tempo for moving fragile freight faster and more efficiently. FreightMaster matches this pace with the industry's most complete selection of hydraulic cushioning equipment. Cushioning equipment that's tailored to provide the high performance of protection each car design requires.

Selection is just one of the reasons that shippers and railroads are specifying FreightMaster equipment at a record rate. They know that there's over a decade of experience and engineering know-how incorporated into every FreightMaster unit. They also know that every unit offers these FreightMaster-originated benefits:

END-OF-CAR CUSHIONING — Solves camber problems and offers high-capacity impact and train-action cushioning performance. Light installed weight doesn't rob car of lading capacity.

BOLSTER CENTER FILLER RETAINED — FreightMaster installation retains structural integrity of car design to lessen chance of broken bolsters, cracked center plates, or other structural failures.

DUAL SEALED HYDRAULIC CHAMBER — Factory sealed unit lessens maintenance. Unique dual hydraulic chamber design absorbs tremendous force, but does not transmit excessive pressure to outer seals.

FACILITATES INSTALLATION — Easily installed in proven standard "Z" section center-sills.

Why not join the trend to FreightMaster's modern cushioning concept and your highest long term value in protection for car and cargo? Call your FreightMaster Sales Engineer — he matches your requirements with unexcelled service.

FreightMaster is ~~10~~ 11 years ahead

FreightMaster®
A **Halliburton** Company

NEW CONCEPTS OF INCREASED PROTECTION FOR CARS AND CARGO THROUGH RESEARCH

MEMBER RPI

Available — FreightMaster's national network of Assistance-In-Depth Service Engineers
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GM

MARK OF EXCELLENCE

The Ballad of JOHN HENRY

Of the many folk heroes associated with the railroads, perhaps the greatest of them all was John Henry. He matched his brawn against the newly invented steam drill, but he drove too hard, and the mountain won. Old John Henry died with his hammer by his side. Yet ever since that fateful day, the echo of his hammering can be heard in the stanzas of this great old railroad song.

When John Henry was a little baby
Sittin' on his mammy's knee
Well he picked up a hammer and
A little bitty steel
Said this hammer's gonna be the
Death of me
Lord, Lord
Hammer's gonna be the death of me

John Henry was a real steel drivin' man
Oh what a man was he
Now the Captain said to John Henry
I'm gonna bring that steam drill 'round
Gonna bring that steam drill

Out on the job
I'm gonna wop that steel on down
Lord, Lord
Wop that steel on down

Well John Henry said to his Captain
A man ain't nothin' but a man
And before I let your steam
To beat me down
I would die with this
Hammer in my hand
Lord, Lord
Die with this hammer in my hand

Now the sun was hot and it was wet
And there was no breeze at all
And the sweat ran down like
Water down a hill
The day John let his hammer fall
Lord, Lord
The day John let his hammer fall

John Henry was a real
Steel drivin' man
Oh what a man was he
John Henry said to his shaker
Hey shaker why don't you sing
I'm drivin' 30 pounds from
My hips right on down

Just listen to that cold steel ring
Lord, Lord
Listen to that cold steel ring

Well the shaker said to John Henry
I believe this mountain's cavin' in
John Henry said to his shaker, man
'Taint nothin' but
My hammer suckin' wind
Lord, Lord
Nothin' but my hammer suckin' wind

John Henry was hammerin'
On the mountain
And his hammer was strikin' fire
Well it drove so hard that
It broke his poor heart
He laid down his hammer and he died
Lord, Lord
He laid down his hammer and he died

John Henry was a real
Steel drivin' man
Oh what a man was he
When they took John Henry
To the graveyard
Buried him in the sand
Every locomotive come a roarin' by
Says there lies
A steel drivin' man
Lord, Lord
There lies
A steel drivin' man

John Henry was a real
Steel drivin' man
Oh what a man was he

Countless railroad men, like John Henry, gave their all to help span America with tracks of steel. Thanks to their courage and indomitable will, railroads grew and prospered and America grew and prospered.

We, at New Departure-Hyatt, love the colorful railroad past as much as John Henry did. Actually, that's why we're running these nostalgic ads. But, we love progress and the future of the railroads even more—which is why we constantly strive to build even better NDH Taper Freight Bearings.

If you'd like a full-color reproduction of this ad (without commercial message) which you can frame for your office, just let us know. We'll be happy to send it to you.

NEW DEPARTURE HYATT BEARINGS

Division of General Motors Corporation, Sandusky, Ohio 44870

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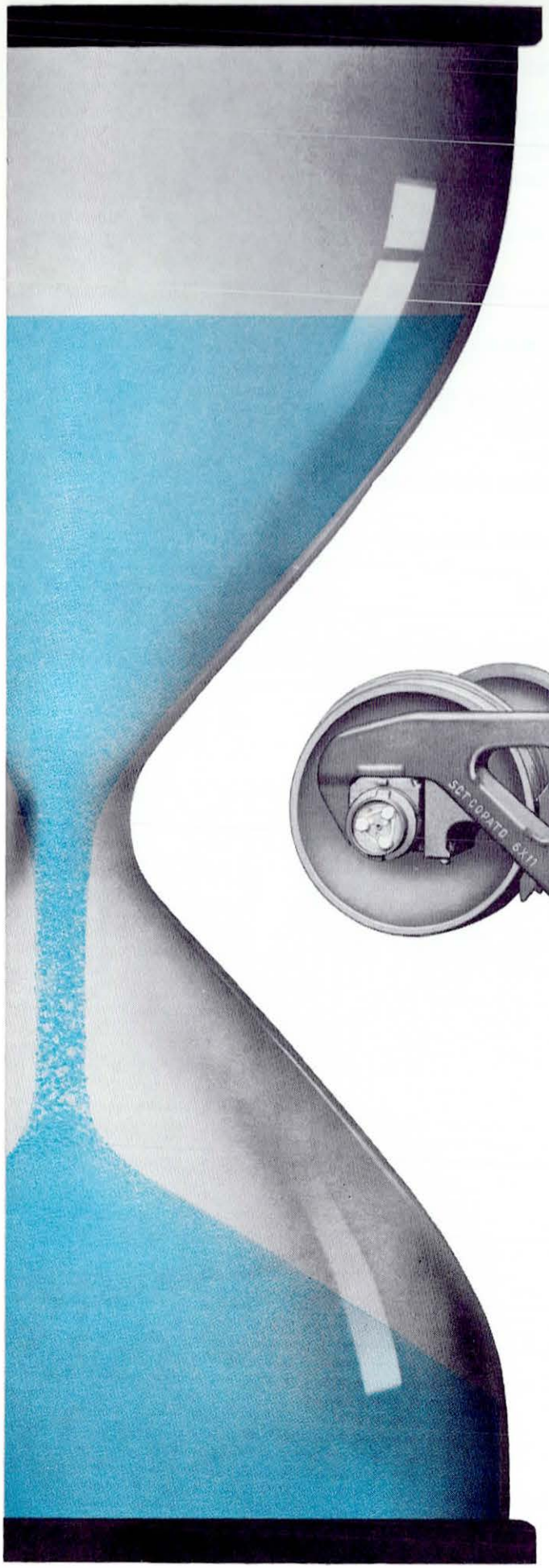
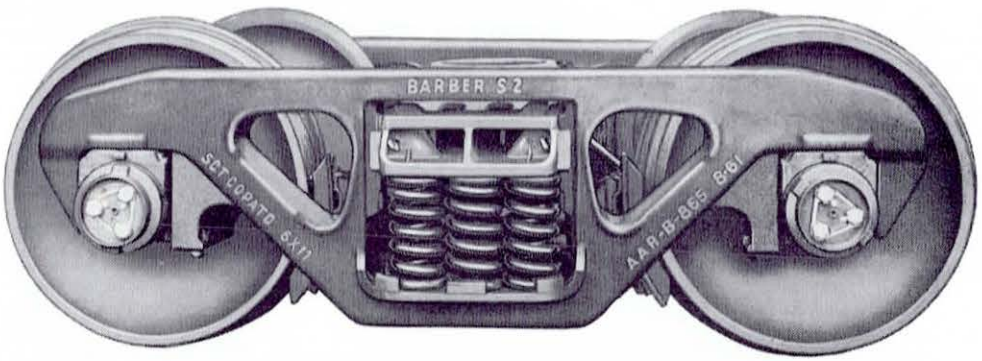


IS LONGER LIFE *THE REASON FOR* BUYING BARBER STABILIZED TRUCKS?



...IT'S ONLY ONE

It's important, but so are the other major benefits that result from "Total Design Concept." Remember Barber Stabilized Trucks also provide greater lading protection, lower maintenance and lower first cost.

"Talk to the Man from Barber"

BARBER STANDARD CAR TRUCK COMPANY
CHICAGO • PHILADELPHIA • MONTREAL

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RAILWAY AGE
THE TRANSPORTATION WEEKLY

TOMORROW'S RAILROADS

NO. 12

WHO WILL LEAD THE WAY?

Concluding a series exploring what can and must be done to create the 21st century railroad ...the 21st century transportation system

BY GUS WELTY

continued from cover

the invention of the wheel. Why is this belief so strong? Essentially, it draws its strength from an estimate coupled with a fact. The estimate: This nation is heading into an era of unprecedented transportation demand, an era of total mobility. The fact: Today's national transportation capability cannot come close to meeting that demand.

● **Holding a belief** and doing something about it, however, are two different things. And, sad to say, there is only a beginning national awareness of the problems of preparing today's transportation to meet those multiplying demands of tomorrow.

● **Transportation** is taken for granted. It plays no direct part in the lives of most people. The average citizen knows little about transportation quality or cost—and he couldn't care less. He doesn't relate transport capability to his own life-style or standard of living. He may fret about an occasional airline delay or a late commuter train. But when he worries about tomorrow's world, he does not worry about "transportation."

● **He should worry.** Mr. Average Citizen, right now, should be scared stiff. He's looking ahead into a world of increasing population, increasing concentration of population in urban areas, increasing industrial production, increasing leisure time, increasing interest in the better life—and increasing pressures for the fast, safe and economi-

The railroads' statistical "image" shows:

1. Slow growth in freight-service-performed . . .

Source: AAR

cal movement of both people and goods.

But the transportation industry today is ill-equipped to respond to those pressures, ill-equipped to do its vital part in serving that world of tomorrow.

● **First, consider the railroad.** It is imperfect in performance, it has serious market and financial and labor problems, it has no guarantee of survival in tomorrow's America. But it also has an unmatched potential for development into the primary transportation problem-solver of tomorrow.

It is ironic that railroads today are perhaps the least secure of all modes of transportation. Because by any logical measure, railroads tomorrow will have to be the backbone of transportation.

● **Railroads, however, must change** and be changed if they are to fill that role. Transportation as a whole must change and be changed. Railroads must become much better than they are. Transportation must become much more of an entity than it is.

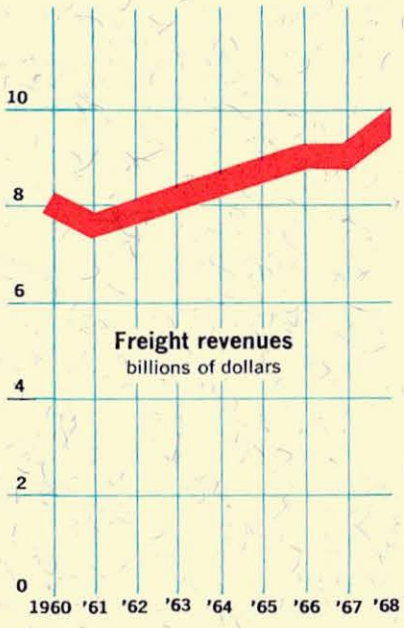
Insofar as they can, railroads and other transportation companies are getting better. But none of them will be able to meet tomorrow's needs without help—and that help, inevitably, must come from government.

● **Government could make** many contributions. Given the practicalities of the situation, however, there are two that stand out: (1) Government could permit the formation of multimodal transportation companies, and (2) government could help set up the means for financing needed improvements in all forms of transportation.

In both areas, the need seems obvious. The key to tomorrow's transport capability will be flexibility. The

multimodal approach is the most logical. At the same time, there is an increasing need for development of equitable ways of buying improved plant and equipment. The government-administered trust-fund–which has worked so well for highway construction–could well be the most logical approach to solving this problem.

2. Slow growth in freight-revenues-earned . . .



Source: AAR

● **When will government** start thinking along these lines? Only when government, and the public, are made aware. Only when needs are clearly established. Only when government, and the public, are told of the needs. And only when government, and the public, can believe what they're told.

● **It is up to railroads** to take the lead in any "awareness" program. It is up to railroads to establish need–and to do it in a way that will be believed, accepted and acted upon. Other forms of transportation may eventually enlist, in this total-transportation cause. But the natural role of leadership falls to the railroads.

Are railroads ready or able to seize this leadership? Close observers of the industry still have their doubts. But they do acknowledge that railroads are trying to whip themselves into shape to play the leader's role. They will concede that railroads are getting better–and that railroads may soon be in position to win the kind of public support they need.

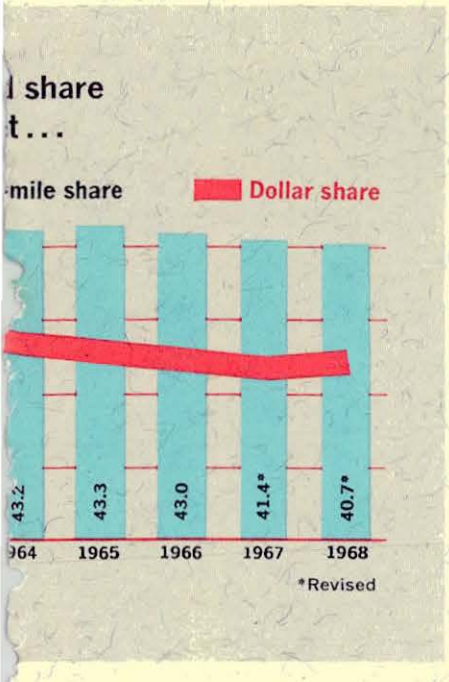
● **Part of this confidence** is based upon the physical improvements the industry has been able to make. Part is based upon managerial competence. Part is based upon new railroad market explorations. Part is based upon a feeling that rail employees and their leaders are ready for a new kind of give-and-take in which common man-

agement/labor interests will be recognized. Part is based upon a belief that government itself is ready for a change—provided it is given proper incentive for helping make change possible.

Another irony in transportation, however, lies in the fact that the railroad—if it's thought-of at all—is popularly regarded as some sort of relic, a hangover from a long-past era which hasn't had the sense or the good grace to disappear. Tomorrow's railroad, in short, can't be built upon today's image. But how do you go about changing an "image"? Where do you start, in trying to build an accurate picture of what you are, what you can do and why you deserve support?

● **You start by performing**—by promising what you can do and by doing what you promise. You put a continuing check on service quality, and you use it not only to maintain present performance but also to improve upon it. You work out ways to serve new markets. You try to work with employee organizations, recognizing that employee representatives also have problems. You invest as much money as you can in property and equipment improvements, and you make sure that these investments can be justified. You promote research, as a company and for the industry. You promote unity, in the industry. You promote an air of the positive, inside and outside. You strike a balance between waving the proverbial crying towel and shouting "how sweet it is," and you talk of problems in the context of how you're trying to solve them. And you work.

● **The railroad industry** has a positive story to tell—and part of that story is being told. Still, there is a tendency to



narrow the message, to talk primarily of past achievements and of railroads as low-cost haulers of freight. In today's world, that may not be enough. In today's world, few people care much about yesterday. In today's world, and despite the constant fear of inflation, more people seem to be putting service first and cost second—as shippers do just about every time they choose highway or air in preference to rail service.

● **This leads to a conclusion:** Service is the rock upon which tomorrow's railroad must be founded. Service is the *only* rock upon which tomorrow's railroad—tomorrow's transportation—can stand. And service is the reason why (1) the multimodal transportation company makes sense, and (2) across-the-board fairness in transport-improvement financing must be developed.

● **No matter how good** they may be, tomorrow's railroads cannot do the whole job—nor can tomorrow's truck lines, airlines, pipelines, waterways operators. But look at transportation as a whole. The buyer of transportation wants reliability. He wants dependability. He wants simplicity. He wants to be able to regard transportation as just one element in the whole process of his company's physical-distribution pattern, from raw material to finished product. Logic says he should be able to deal with one transport agency, to obtain the total transport capability he requires. In most cases, he can't do that today.

● **Similar reasoning** can be applied to the problem of transportation-improvement financing. Today, there is an imbalance, in which railroads alone are financing the total amount of right-of-way and equipment improve-

4. In passenger service, there's one growth market . . .

Source: AAR

ment. The railroad suffers—but in the final reckoning, it is the transportation buyer who loses. His dollars would be better spent if all transport media were on an equal basis in their access to property-improvement funds. But under present law, this can't happen. For this cause, as for the cause of multimodal transport, change is needed.

● **Railroads** are in a peculiar position. By a ton-mile measurement, they do 40% of the nation's freight-hauling business. By a dollar measurement, they do little more than one-eighth of the business. Most people don't know either fact. Most people don't know that it would be tough to live without railroads. Most people don't know that railroads find living pretty tough, on taking in what they do in return for the service which they perform.

● **By reason** of their present position, railroads have basic choices to make. They can turn all their effort toward the bulk-commodity business that creates tremendous volume and doesn't pay much per unit. Or, they can serve this market and at the same time turn their efforts toward the retail side of the business—the new markets, the traffic which demands high-quality service, the freight that now moves some other way (or soon will) because the other way does the job better. The choices are the railroads' to make. And the nation had better hope that the right choices are made.

● **Another responsibility exists,** however, beyond that of the railroads or of any other form of transportation. That's the responsibility of government—to correct, protect and promote. Government's performance, thus far, has been less than perfect. It has been slow to correct inequities that need correction. It has been uneven and in-

consistent in carrying out its protective function. It has allowed its promotion to go awry, and the nation's long-range transportation capability has suffered as a result. Government, in short, has some making-up to do—and the task of making-up should be soon begun.

Primary responsibility, though, still does rest with the transportation industry—railroads very much included—to present a case so clearly and so powerfully that response will naturally follow.

● **There is this to be said:** Railroad management (and, in fact, all transportation management) is fully aware of the kind of service it should be providing. Management, for the most part, is doing what it can with what it has.

● **To be sure,** there are inhibiting factors—limitations and restrictions which are blocking management from making a free-wheeling attack on the problems of today and of tomorrow. Something positive can be said, however, even where these limitations and restrictions are concerned: With few exceptions, they are man-made. They can be changed—once men are able to overcome their natural fear of change.

● **In the railroad industry,** "change" can take many forms. But in the context of preparing for tomorrow, two aspects of change stand out: (1) Development of greater inter-road cooperation for service improvement; and (2) development of a working partnership between management and the employee organizations to provide greater strength and flexibility in meeting service demands.

Progress in these two areas alone would go a long ways toward shoring-up the industry—and getting it into shape to meet tomorrow head-on. What are the chances for

5. And one market that's going, going, almost gone . . .

Source: AAR

6. In rail employment, no population explosion . . .

Source: AAR

7. In financial performance, no upward surge . . .

Source: AAR

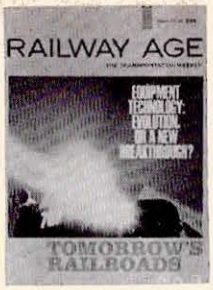
*On net investment.

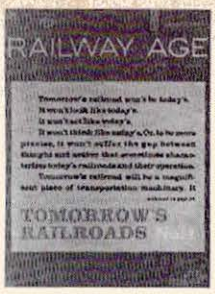
progress? Good-to-excellent—both places.

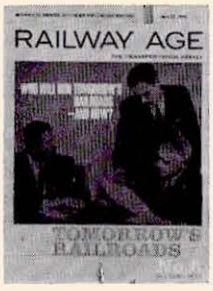
● **Railroads have already made** significant moves, individually, to root out poor service and to improve reliability of operations. Inter-road problems will always exist, so long as there are rich railroads and poor ones. But industry-wide efforts are starting to pay off, in improved handling of interline business. A certain momentum is building up—and nobody talks of letting up on either the individual or the cooperative approach to better service.

● **On the labor front,** progress has been less tangible. Too often, railroads have seemed to take two steps backward for every step forward. Still, there is more cause for optimism today than ever before. In key areas, labor's leaders are showing more awareness of the connection between their actions and the fortunes of the industry. Labor's leaders—some of them, at least—are starting to look at old practices in terms of today's (and tomorrow's) transport market requirements. Labor will not play giveaway. But labor may be ready for the kind of give-and-take which will strengthen both the industry's and the employee's position.

● **There comes a time,** inevitably, for a summing-up. A year's exploration of an industry's future can touch only so many points—the industry's markets, its technology, its financing, its management and labor problems, its role as part of a bigger transport industry, its relationships with government and the nation as a whole. And, there is one word which could serve as that summing-up —for tomorrow: that word is "change." That's what tomorrow's railroads is all about.







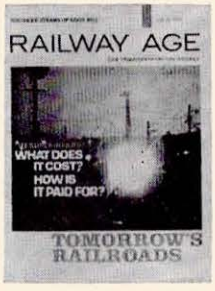
RAILWAY AGE
READER BONUS

Here, with the 12th and last installment, is a reduced-size

REPRINT

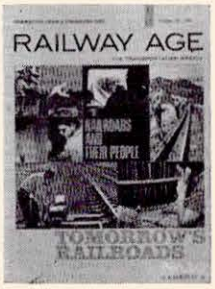
of the first 11 chapters of

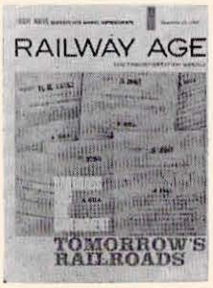
TOMORROW'S RAILROADS

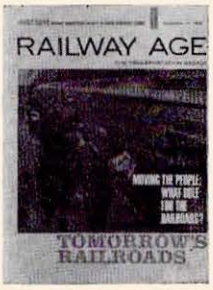


"Your observations should be made required reading for all those who make laws pertaining to railroads or are engaged in railroad regulation, and also officers of railway labor organizations."

John W. Barriger,
President, The Katy



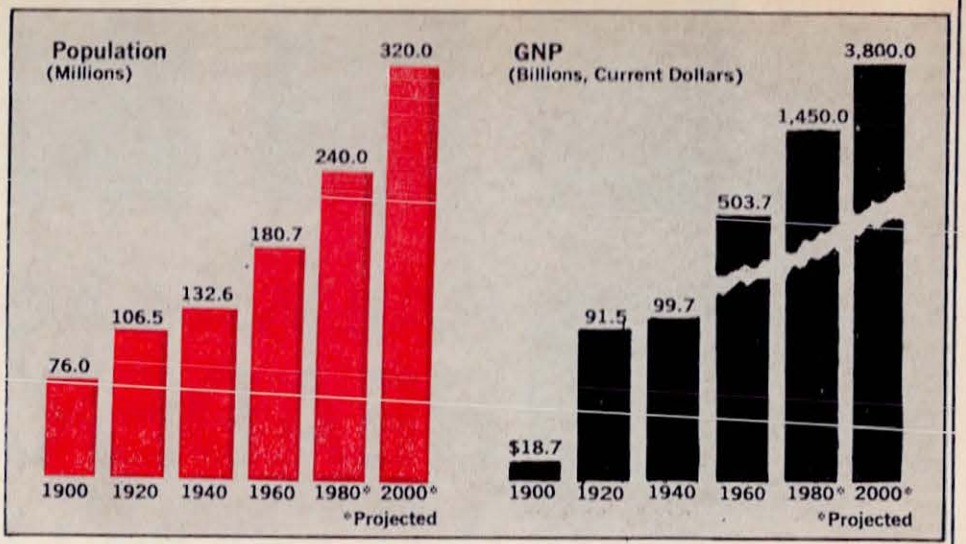




NO. 1 TOMORROW'S RAILROADS

Introduction

This country cannot afford second-rate transportation. Unless railroads are first-rate-plus, transportation becomes second rate.



1. To match the nation's continuing growth, railroads must put plant-improvement planning on a basis of predicted or assumed expansion.

Tomorrow's railroad won't be today's. It won't look like today's.

It won't act like today's.

It won't think like today's. Or, to be more precise, it won't suffer the gap between thought and action that sometimes characterizes today's railroads and their operation.

Tomorrow's railroad will be a magnificent piece of transportation machinery. It will not be super-railroad alone, but super-transportation in the broad sense.

• **Tomorrow's railroad will be all this—if.** Tomorrow's railroad may not be much of anything at all—unless. There will be nothing "inevitable" about a climb to success or a slide toward failure. It's a matter of choice—a matter of decisions very soon to be made by men, both inside and outside the industry.

The transportation problem in the United States today would try the patience of Job and the wisdom of Solomon. It is a massive problem, complicated by lack of planning and a failure to recognize transportation for what it is—a single function which should be built around the ability-to-serve of the various elements which make up transportation.

• **What role is set up for tomorrow** for what's known as a "railroad" today? Not much of a role, to judge from various professional and amateur soothsayings of the '60s. Railroads, it's said, are losing ground in today's economy and today's market. They can only fall farther back in tomorrow's world.

If today's railroads were to be transplanted into the world of tomorrow, bodily and without internal and external change, the predictions of the doomsayers would be accurate. The saving factor is change, both mental and physical, to put logic into the transportation equation and to bring that equation into balance.

What are the elements of the railroad problem, and the transportation problems? Who will have to do what, if transportation is to be a contributor to, not a detractor from, economic and social growth? What will railroads have to do, and what will others have to do about railroads? In this Golden Spike Centennial year, marking the opening-up of a continent to growth, Railway Age undertakes a year-long exploration of these questions—these railroad needs, these transportation needs, these national requirements.

There will be certain fixed frameworks of reference. One is that transportation must become more of an entity, if it is to meet tomorrow's service demands. Another is that the transportation function will be far better served under private, corporate management than under government management. A third is that the railroad—even as now constituted—offers the best potential as the keystone for tomorrow's systems.

These elements make up the basic study of tomorrow's railroads, tomorrow's transportation:

• **Railroads need to know** far more than they do about the transportation market, about transportation demand, and about the kinds of service which can be successfully offered. Railroads are heavily dependent today upon certain key market areas. Some of these may well be lost tomorrow, to "competition" and to economic evolution in which some industries rise and others fall. The key word is "planning," and it means a lot more than merely the appointment of people to keep tabs on a given area of traffic solicitation.

• **With market** as well as operational considerations in mind, railroads and their suppliers need to take a fresh look at both the vehicle and the way it moves. Supplier research must be encouraged, at the cash register. Railroads must begin doing more of their own economic/technological R&D work, supplementing and complementing and cooperating with supplier efforts. Railroad marketing and equipment people must be planning at least as far ahead as their present and potential customers are.

• **In their multi-billion-dollar investment** in fixed plant, railroads have a primary network on which tomorrow's transportation should be based. Nothing can really compare with it as a national asset, not the Interstate Highway System, not the inland-waterways system, not the vast airport system which may eventually be built. But in key areas, the railroad plant is barely up to the demands of today. Consolidation, and some disinvestment, may be required. At the same time, plant improvement must be brought along, parallel with improved concepts in equipment and operation.

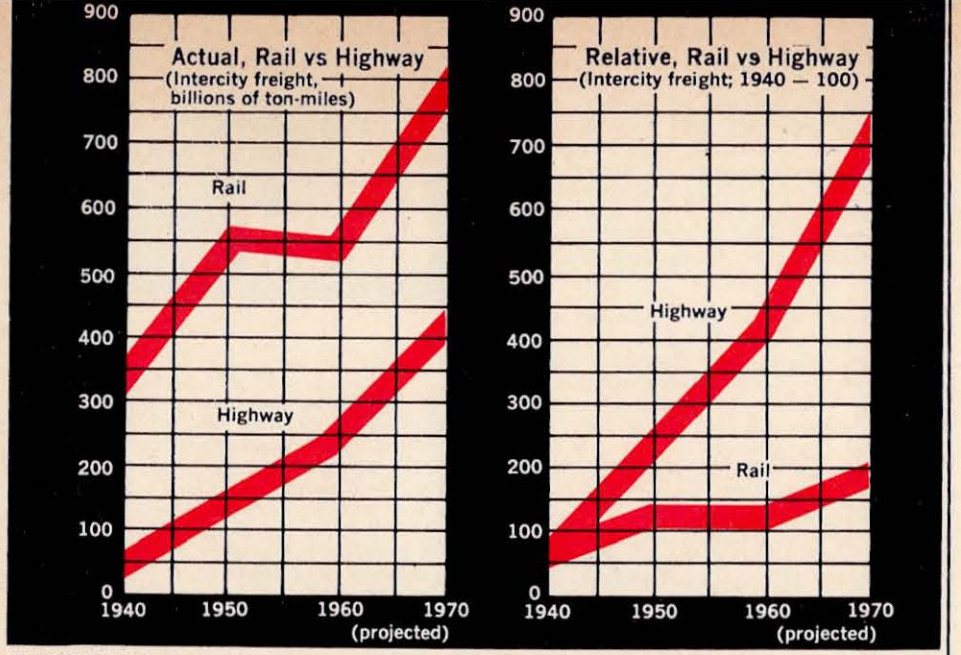
• **In operation,** today's railroad puts on quite a performance with what it has, much of the time. But the exceptions, the service failures, are still too numerous. They can be fatal. Product-quality control is partly a function of equipment, power, fixed-plant capability. It is equally a part of management's capability in translating top-level goals into middle- and lower-level activity.

• **Management,** in any context, must improve its basic ability to manage. On tomorrow's railroad, there will be no place for a "caretaker" theory of management, and no place for the kind of problem-response which involves producing more and more of a product which has proved less and less saleable in the transportation marketplace. Growth, of the kind envisioned for tomorrow's railroad, will demand an entrepreneurial management approach. In a way, the men who build tomorrow's railroads will be building something totally new. Because of that, the business of railroad management, or transportation management, may hold the greatest opportunities of all for men whose careers will be shaped during the last quarter of this century.

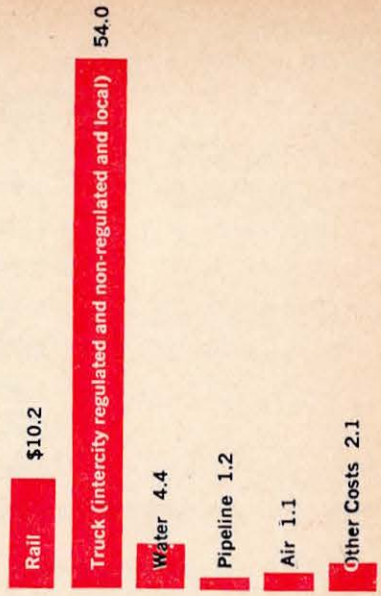
• **One of railroading's several vicious circles** has to do with the availability of capital. Excellence in transportation will not be cheaply bought. The degree of competence which railroads now have has been an expensive thing, with capital improvements in recent years amounting to as much as three times net income, and with rates-of-return on investment showing no particular or consistent improvement. Investor interest in rail securities, however, has held up. Whether it's a matter of confidence or one of speculation, money has been available. But for tomorrow? New methods of financing may have to be explored, by the industry itself and quite possibly by government.

• **While railroads move toward tomorrow,** so do motor carriers, air carriers, water carriers. Still, there is no discernible movement toward development of transportation systems. A railroad today is much as a railroad was 83 years ago when the Interstate Commerce Act was passed. Despite periodic statements about "national transportation policy," there is none, and the nation suffers as a result. Transport coordination is a sometime thing, true intermodal operation remains a dream. Even the richest of nations can afford to pay only so much—in terms of money, time and trouble—for the movement of its goods and the mobility of its population. As matters stand today, the price is rising, and rising.

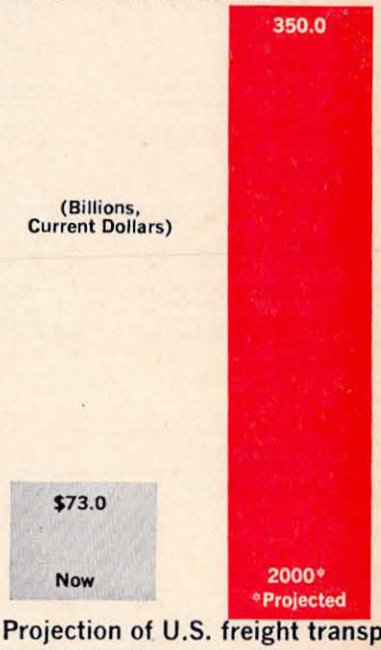
• **Well over half of the nation's transportation** bill goes for the movement of people. Railroads are not major participants in the market, and the share of public attention they do get is all out of proportion to their importance. The '60s have been an agonizing period, in this area, and the agony may stretch into the early '70s. But at that point, when railroads are virtually out of the intercity passenger business as it's now known, a time for reappraisal must come. Reappraisal does not mean that there will be re-entry. It merely means that whole new marketing studies must be undertaken, with



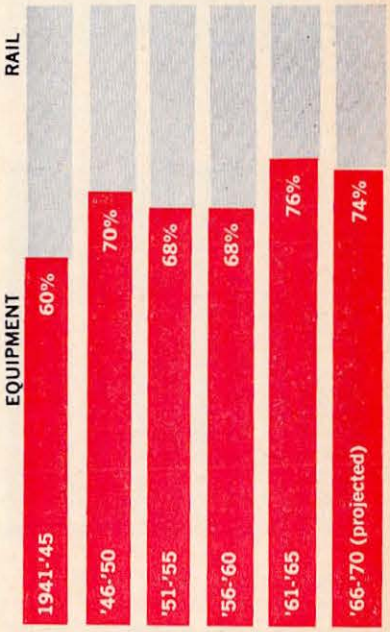
2. Will the trends in transportation growth hold? The big question marks are management, labor, government, capital availability, image.



3. Share is less favorable in billions of dollars than in ton miles.



4. Projection of U.S. freight transportation bill is staggering.



5. This is where railroad capital dollar is spent. How will dollars be raised to build for tomorrow?

government playing an inevitable role.

• **All the skill** that men can bring into transportation management and all the money that can be applied to technology will be to no avail if the railroad industry continues with two forces, management and the labor organizations, pulling in opposite directions. In labor relations, history is railroading's worst enemy. And in its raw power, labor can say—labor can actually determine, under present circumstances—whether there will be a tomorrow's railroad. Labor's inclination is toward the status quo. Change has to come, hopefully without intervening force, but if necessary with that force.

• **No relationships will be more important** than that which railroads establish with government. There is, now, a Department of Transportation. It needs help. To do its job, it needs evidence from the industry as to what's ahead, what kind of thinking is going on. But DOT is only a part of government, and as yet it is not a key agency with proposals that automatically demand respect. The broad railroad/government problem, most simply stated, may be that government generally does not understand and will not understand its role until the industry itself begins to demonstrate the kind of role which it can and must play.

In the Tomorrow's Railroads series, Railway Age will attempt to assess three things: (1) Where the industry stands today; (2) where railroading and transportation must be, if the 21st Century is to show the national development now hoped-for; and (3) how America and its transportation system might get from 1969 to 2000 with the least travail and the most accomplishment.

No single improvement will make tomorrow's railroads what they have to be. Forever intertwined are knowledge and foreknowledge of the market . . . improvement of the basic freight-carrying vehicle and of its means of movement . . . improvement of the plant over which movement is made . . . control of operational quality to customer satisfaction . . . development of total and precise management . . . development of the resources for financing the future . . . creation of total transportation systems . . . solution of the people-mobility problem . . . creation of a new kind of understanding between the industry and its employee organizations . . . creation of a greater understanding by goverment of future transportation needs and of the moves which can only be made by government if those needs are to be met.

For years, transportation policy and transportation regulation and transportation planning have defied logic. Now, time is running out on this kind of defiance.

Historically, the railroad has served well. It has been and is far from perfect, or all-encompassing, as a means of meeting transportation/distribution demand. It is still the only means of transportation with the capability and capacity to meet tomorrow's demand.

Along with all the other problems facing transportation, however, there is a basic one facing the railroad industry. It's the problem of image, called by that name or by any other. It's the problem of involvement, of interest, of concern.

The making of tomorrow's railroad is not a job for railroad men alone. But government will not move, so long as there is no evidence of public or constituent interest in making needed changes. And, in another key area, labor's leadership will not move, so long as there is no evidence of rank-and-file desire for a cooperative, industry-progress movement.

Still, railroad men must bear the brunt of the effort. Imaginative people in railroading, and there are a good number of them, must be encouraged. An element of risk-taking must be introduced again. Diversification, where it's engaged in, has to be properly channeled. The men who run tomorrow's railroads, in a sense, have to become like the men who built the railroad industry, a century and more ago.

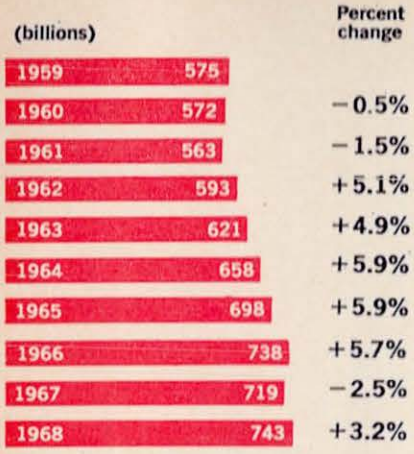
By the year 2000, the population of this country will have risen to about 320 million persons. The Gross National Product, now measured high in the hundreds of billions of dollars, will have climbed close to the $4-trillion mark. Nobody would presume to superimpose today's transportation systems on a demand-system like that.

What has to be done? Several things seem apparent. Economic growth, of necessity, depends upon distribution. Distribution depends upon agencies of transportation. Agencies of transportation, going forward unchanged in form or capability, will not be up to the task.

There are technological frontiers to be explored, for all present forms of transportation. There are also economic and social frontiers.

Present capability must be considered. Potential must be examined. And so the theme of Tomorrow's Railroads is just this: This country cannot afford second-rate transportation. Unless railroads are first-rate-plus, transportation becomes second-rate. It's as simple as that—and as complex as that.

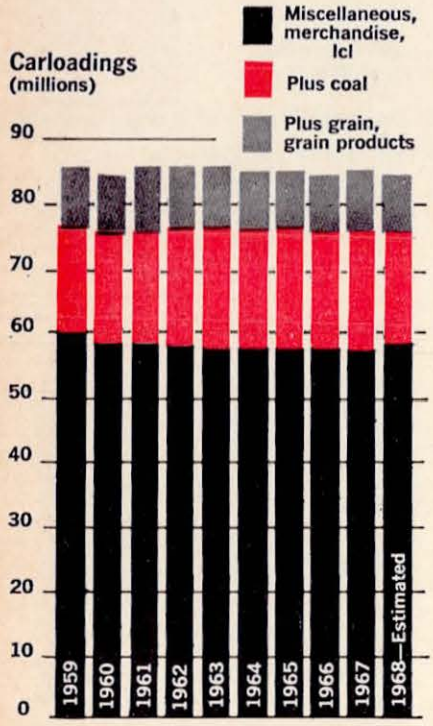
RAIL TRAFFIC:
The ton miles keep climbing . . .



. . . but not net operating income.

*—Estimated

THE TRAFFIC MIX:
What should it be?



"The goal is not merely greater market penetration in terms of traffic units. The goal is greater market penetration in terms of total dollars spent for transportation."

The white knights of railroading are the marketing men—and well they might be.

Their job shapes up as the biggest specific job in railroading. Their responsibilities toward the industry and its future may rank second only to those of the chief executives. Their performance can in large part determine the form tomorrow's railroading will take.

As marketing men see it, the over-all goal of railroad business-development is sometimes too simply stated. The goal, they say, is not merely greater market penetration in terms of traffic-units. The goal is greater market penetration in terms of total dollars spent for transportation.

• **How do railroads stand,** in the here and now, as participants in transportation? The traditional measure is the ton-mile division of intercity freight business, and by this measure, railroads stand strong. Their share of the market has slipped and is slipping, but among regulated carriers the railroad is still No. 1.

Transportation analysts, however, argue that this measure is less than accurate. It distorts the picture, they say. It inflates railroad market participation. Worst of all, it may lead to the determination of false or inadequate marketing goals.

• **These analysts prefer to talk money.** And in money terms, railroads come off poorly—so poorly that today's generation might be forgiven for wondering if a railroad "monopoly" ever really existed.

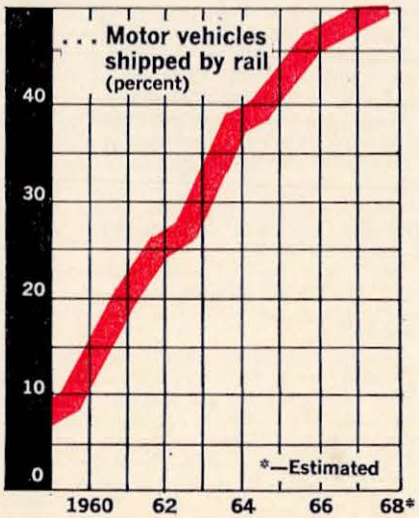
As the 1960s began, railroads were getting about 18% of all the dollars spent for freight transportation, by all modes, regulated and unregulated. Latest available figures for 1968 indicate that the industry's participation has dropped to about 13.5%.

If the transportation-dollar universe is reduced to rail-vs-highway terms, similar slippage is evident. In 1960, railroads got 21% of the dollars spent. Estimates for 1968 put their share at about 15.5%.

• **These figures are perhaps the real measure** of the challenge facing railroad marketing. These figures—not the ton-mile statistics—are the ones marketing men worry about in trying to plan industry growth.

One concerned marketing officer sums it up this way: "It's fine to talk about GNP projections, and about how railroad traffic will increase tremendously if we only maintain our present ton-mile 'share.' But then you look at the dollar-share. And, frankly, you sometimes wonder if it can be worthwhile to maintain an enterprise of the scale of the railroad industry, when you're getting so little of the business."

The comment is a sobering one. But it, like observations from other sources, is more an admission and acceptance of the challenge than it is a reflection of underlying pessimism.



NO. 2 TOMORROW'S RAILROADS

The Market

• **Marketing has been defined** as the identification of what the customer needs, followed by the creation of a product or service to meet that need within the restraint called profitability. It's not an easy job, to be a successful marketing man in transportation. But, as the traffic manager of one major shipper has pointed out, it's not really so difficult as it might be if railroads were selling soap or cereal or soft drinks.

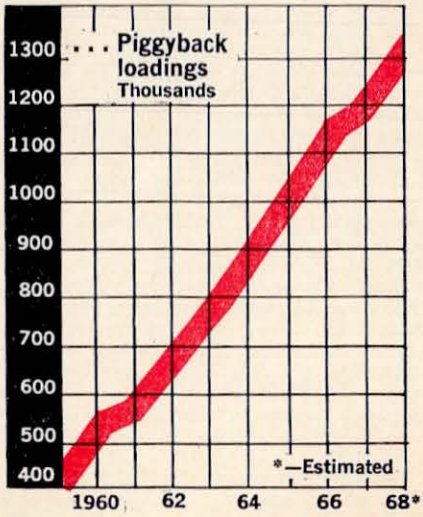
In product marketing, this shipper reminds, the average industry often has to spend much money, time and research effort in trying to find the exact form of product-and-packaging which the consumer will buy. Much more goes into consumer marketing than merely the usefulness of the product. Matters of taste and convenience and appearance must be considered. Wrong guesses can be disastrously expensive.

But in transportation? In transportation "everything is measured by cold, hard realities—utility, cost, service, reliability, protection of property, and speed. There is no room for selling gimmicks, and no need for guesswork."

• **Even more to transportation's advantage** may be the close and direct relationships built up between carrier and customer, over months and years. The consumer-product marketing man can rely on surveys and test-marketing and hunches. The transportation marketing man can lean on facts and on estimates which should be considerably more precise.

What's the logical approach to putting transportation's marketing advantages to work? For railroads, it's been suggested, the approach to greater market penetration starts with the customer's costs—those costs associated with the rate itself and those related to performance of the transportation function.

It can be argued with some validity that rates, as such, are not a real problem. Even with the recent increases, rail rates are still generally lower than competitors' rates, for the service rendered. Many advantages might be gained by chopping the present rail rate structure down to manageable and meaningful size, but the pricing of rail service is probably not the heart of the rail marketing problem.



• **Some say that speed is the key.** It's been demonstrated that motor carriers are showing increasing long-haul capability and getting increasing long-haul business. For certain markets, a shortening of delivery time would indeed help to bring new revenue dollars to the railroads. But several things have to be remembered: (1) Speed is relative, and no shipper will pay for more speed than he needs; (2) railroads are already speed-competitive in many market areas; (3) the development of high-capacity air-freight service, when it comes, will leave speed-selling surface carriers with a less-impressive story to tell; and (4) unless or until rail systems merge down to a minimum number, shipment speed will continue to depend upon interline action—that is, it will do Road A little good to run fast, 60-car freight trains to an interchange point if Road B holds until it can dispatch a 180-car train.

• **Of greater importance is the customer-cost** associated with transportation reliability/unreliability. And it's in this area that railroads may have their greatest opportunity for market penetration and growth —though the present record is not one to generate overpowering optimism.

Railroads, some say, still show schizophrenic tendencies: They're marvelously efficient volume haulers trying to compete in an individual-shipment market—wholesalers trying to be retailers. One top marketing officer finds it rather bemusing, that "railroad speed/reliability factors—regular-as-clockwork movements—have really been applied in the one area where the customer generally couldn't care less—in moving unit-train coal, so it can be dumped and stored and then, sometime, burned."

The problem is that railroads have to be schizophrenic: Their viability depends upon being both wholesaler and retailer. But history and tradition have inclined the industry toward greater competence in the former than in the latter kind of operation.

• **Market patterns seem to indicate** that railroads will continue to do well as volume-haulers. Coal is mined, ore is mined or imported, grain is grown only in certain locations. The industrialization and urbanization of the United States and the development of domestic and import/export trade patterns have established the consuming markets. And railroads do a great job with this high-tonnage traffic.

The retail part of the business is the worrisome part—and the figures are less than encouraging. Under the pre-1969 method of measuring rail traffic, it was possible to get a two-part gauge of rail loadings in the general-commodity area—miscellaneous, plus merchandise, l.c.l. During the 1960s, this kind of business has accounted for roughly 56% of total car-loadings. Year to year, the percentage has varied little.

For marketing men, however, worry begins when rail movement of general-commodity traffic is indexed alongside the Federal Reserve index of industrial production-manufactures. With the 1957-59 period pegged at 100, rail loadings index out at 87 for last year—while the production index stands at 167. Rail business is down, in the absolute. It's down, sharply, in comparison with manufacturing industries' growth.

• **What can railroads do to reverse the trend?** Part of the answer lies in hardware—improvement of power and equipment (Tomorrow's Railroads No. 3, March) and improvement of the plant (TR No. 4, April). Another part lies in improvement of performance quality as management firms up its grip on the enterprise. Still another part lies in the actions of others—in labor and government, principally. All of these elements will be explored in Tomorrow's Railroads studies. But first comes the market and the potential market—because if there is no practical way to market-penetrate, then discussions of power or equipment or plant or management or labor or government become somewhat academic.

• **One rather common explanation** of the industry's marketing difficulties could be summed up in the words of an old-line traffic man: "Operating departments still run the show." Top marketing men aren't trapped by such over-simplification: "I wish it were that easy," one says. And the fact is that top operating officers, almost without exception, deserve no such indictment for business slippage. Indictments should be laid not on people but on time-honored but time-worn and time-weary operating practices which do not reflect today's—or tomorrow's —service needs.

• **Marketing men wince,** when traditional measures of operating efficiency are discussed: They're concerned with standards of service—and they question the level of service that will be provided if operating men are judged by some standard of production such as ton-miles per train-hour.

Marketing men also question the uses made of some of the industry's technological advances: They're concerned, for instance, that expensive computer/communications systems are being applied more to explain operating problems than to root them out and destroy them.

By and large, however, railroad marketing people maintain a remarkable kind of optimism—within certain limits related to the time in which market improvement should begin to show itself. They think they know how much business railroads could be getting, in dollar terms. Some of them are putting rather short time-limits on performance—five years, one says, may determine the orientation of tomorrow's railroads and the success which they are likely to have.

Marketing men also show a remarkable confidence regarding the industry's ability to compete—if improved market information can be made available, and if the railroad product can be restructured with the kind of reliability which the customer demands.

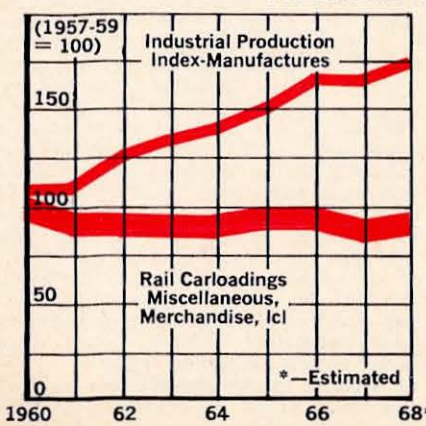
The president of one major railroad puts it this way: "The railroad industry has got to stop producing 'railroad service' and start producing customer service . . . Providing and properly pricing new service is not easy. Railroads are not used to doing it. But if a drug company insisted on making the same old pills that they made 50 years ago simply because they cost less to produce than new kinds of pills, it wouldn't be much of a competitor to today's pharmaceutical companies."

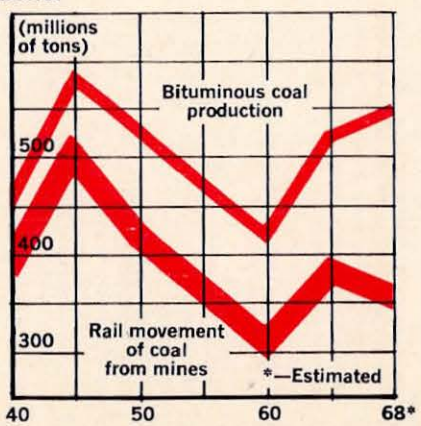
• **There is debate,** inside and outside the industry, as to the place profitability should assume in planning. Logically, profit is the goal of any private business enterprise. In transportation, however, a case can be made for service as the No. 1 objective—with profitability acting as a collar-and-leash on the ways in which service is developed. In any event, profitability is hardly something which transportation's customers should fear —because the best service, reason says, should come from well-financed, profitable and competitive transportation companies.

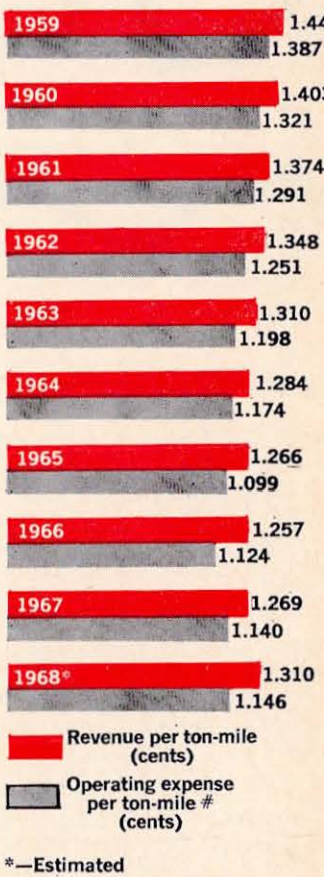
In marketing, as nowhere else, the twin themes of service and profit come together. Service is the way to profit—and based on the goals of at least one marketing man, the service will be superb: "What profitability are we aiming for? You get 4½% or 5% at a bank or a savings-and-loan. Look where the prime-rate is. Railroads made 2.6% last year. And what's our goal? Let's say 10%. We can make it."

◀ Two expansions . . .

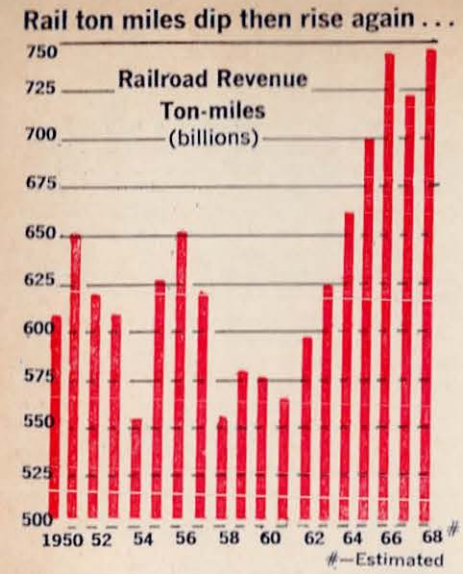
. . . and two contractions.

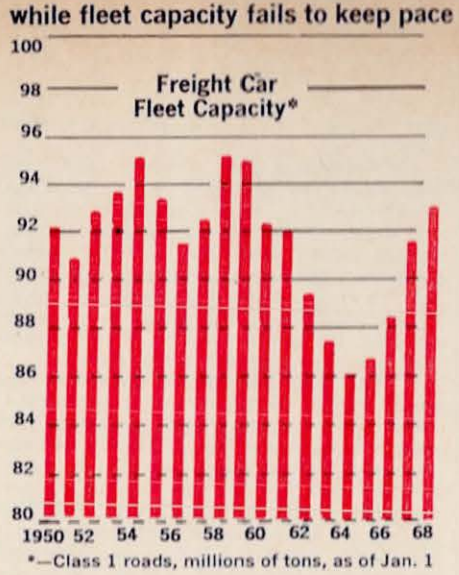


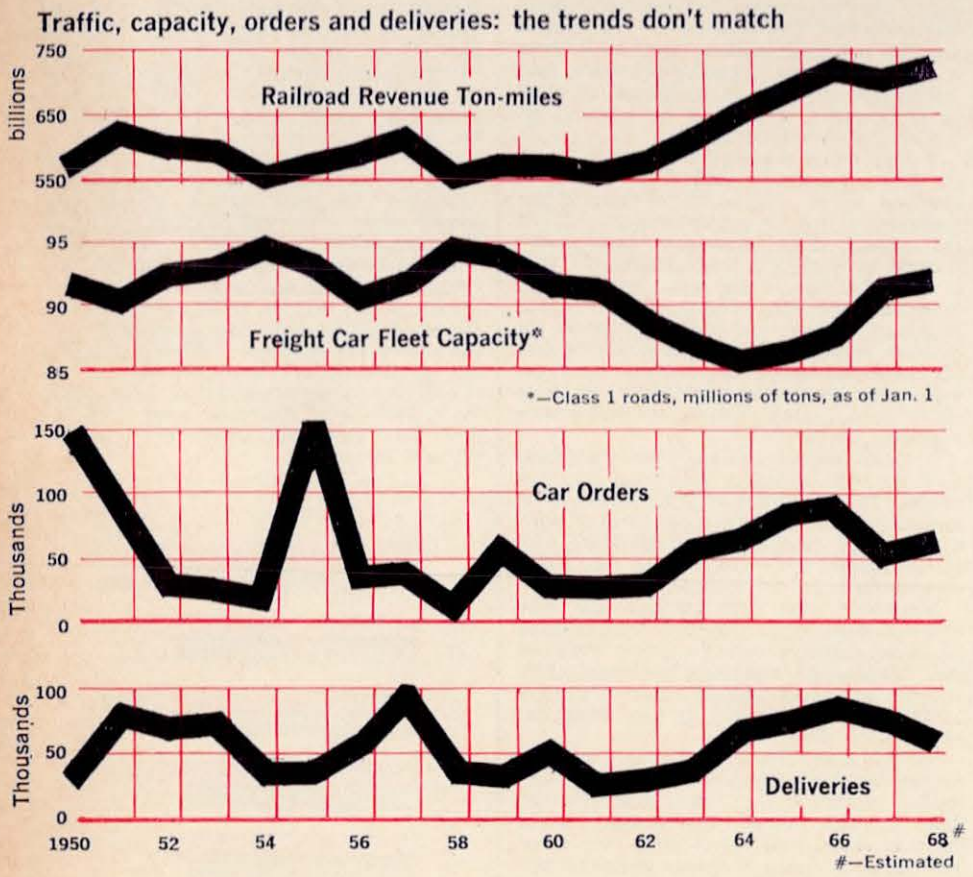


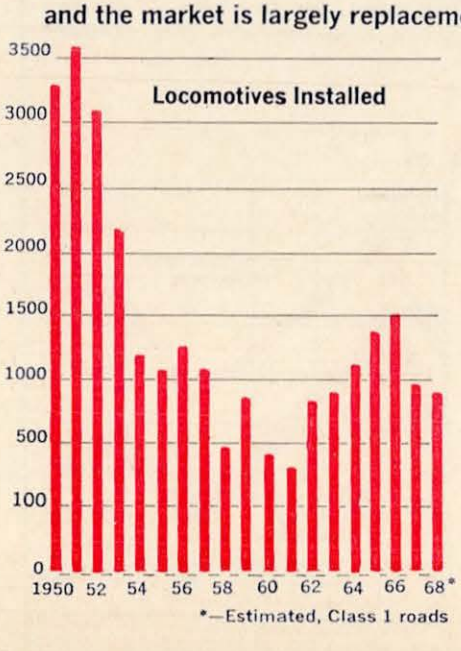


The Revenue/Expense squeeze: not much progress to report.









Railroading is due—perhaps overdue—for a new technological breakthrough.

It may come in the powering of trains. It may come in the design of the "train" itself and its component parts. But it will come, because it has to—for the coldest of economic reasons, tied to market demand, competitive demand and the ever-present pressure of increasing operating cost.

• **The word "breakthrough"** is not easily applied, in considering railroading's technological progress. Railroading is a business more tuned to evolutionary than to revolutionary change. The nationwide system, made up of hundreds of independent companies, large and small . . . the "do-it-yourself" tradition established by the industry's rugged individualists . . . the inbred, up-from-the-ranks nature of railroad leadership advancement . . . even the frustrations of competing in a badly-structured transport universe—all these factors, and others, have played a part in making railroading a trade in which one looks very long and very carefully before one leaps.

Now, however, there are signs—in railroading, in the railway supply field in government—that this industry may be ready to strike out more boldly and with greater innovative flair. The bold look embraces both the equipment and the way it moves. Development of an improved plant (Tomorrow's Railroads No. 4, April) is not being overlooked. But for good reasons—mostly economic—the prime present concern is with railroading-above-the-rail.

• **Rail equipment—the whole concept** of a "train"—is getting the kind of critical study it hasn't had for years. There is a growing theory that too much attention in equipment design has been paid to helping railroads get business, and too little paid to helping railroads move business, once it's obtained. It is no laughing matter, when railroad men hear the freight car described as "a little jewel . . . pretty fancy from the frame up. But as a piece of gear needed to produce a quality transportation product, it tends to be some kind of a bad 19th-century joke."

Nobody, shipper or carrier, can quarrel with the imaginative design work aimed at that part of the vehicle which actually carries the freight. Nobody can argue with the continuing improvement in individual-component areas—couplers and draft gear, braking systems, cushioning systems, truck designs.

At the same time, some will say that what's really needed is a fresh look over-all—the kind of look one company is taking now with its own design program. The basic idea in this R&D effort isn't complicated. It makes use of known components. It's an adaptation of a concept often toyed with but seldom seriously considered—the multiple-wheeled vehicle with each wheel individually suspended and powered. If it works as its backers say it can, it could offer significant transportation, mechanical and shipper advantages.

Where do the potential advantages lie? A low center of gravity, with containerized loads, will permit sharply increased speeds. More even application of acceleration and deceleration forces will be possible. The multiple-wheel feature will provide better load distribution. Higher speeds and/or heavier loading should be possible without extensive and expensive re-working of the track structure. And the whole nature of operation with this kind of vehicle should sharply reduce damage to lading.

• **Central to any consideration** of equipment breakthrough, of course, is the whole pattern of operation as it will be created

NO. 3 TOMORROW'S RAILROADS

The Vehicle and How it Moves

in the late 20th century and beyond. The spread of the short, fast train concept, for instance, or the increased use of equipment in dedicated service would make innovation more practicable by easing some of the design restraints involved in fleet compatibility.

Other restraints, however, may not be so readily removed. There are size and capacity limitations imposed by the shape of the fixed plant. There are structural requirements imposed under present theories of operation: If a car must be built to be capable of operation in a freight train, it automatically has a rugged structure which has to last—or, as one mechanical expert puts it, "you would need real ingenuity to design a car which could transmit more than 200,000 pounds of pull or resist more than a million pounds of buff, and not be a long-life proposition." Unrealistic depreciation requirements also contribute to this long-life design of rolling stock. And the result can be operational and/or market obsolescence, long before the car—as a structural thing—is really worn out.

• **Researchers are looking** in several directions, in an attempt to cut loose from these restraints. The individually-powered vehicle is one possibility. Greater use of articulation principles is another.

• **While railroad and carbuilder R&D people** are probing the 21st century, power-system developers are working in no-less-intensive fashion. The diesel-electric era now stretches back for roughly 30 years. It may go on for another 30 or more—but only if the diesel-electric continues to justify itself economically. In the meantime, the builders are doing their homework—aware of and working on such power systems as straight electrification, the turbine, the heat-exchange unit, even the linear electric motor.

At this point, the most serious competitor to the d-e is the straight electric. Designers have not been able to create a perfect marriage between the turbine and railroad operation. The other, more exotic power units still need much work before application can be practical or justifiable.

For years, railroad electrification has been described in the same terms applied to containerization: It has a great future—and it always will. Now, containerization is coming on. Electrification may, too, under railroad/power company arrangements which would relieve the railroad of the enormous capital costs involved in starting-up.

• **Several factors are working** to promote electrification. Projections point to a tremendous increase in the availability and use of electric power over the next 30 years. Among all present transportation modes, railroads are in the best position to make use of this power—and they represent a great untapped market for the electric utilities, second only perhaps to the market in electric heating.

One long-time student of electrification, with a view toward super-railroads, states the case this way: "To the degree that faster train speeds and growing traffic densities must be accommodated, there is possibly justification for electrified operation which may have been lacking before . . . Important operating advantages are available through the electric locomotive, including greater horsepower and tractive effort per unit for increased hauling capacity, more operating flexibility and availability, reduced maintenance costs, longer economic life and more over-all intensified use of the physical railroad plant."

But don't write off the diesel-electric. Right now, the builders are looking at two new generations of d-e power—characterized by higher single-unit horsepower, an extremely flexible mid-range in horsepower and in all units a further improvement in operational reliability. As much as 8,000 hp may be packed into a single unit, at the upper end of the scale. Demand will continue for power in the 2,000/2,500-hp area. High- or mid-range, the emphasis will have to be on dependability.

• **And in powering tomorrow's railroads,** the diesel-electric will be a powerful competitor. Unit cost per horsepower has come down, to offset in part the increasing cost of fuel. Railroads have been able to do more business with fewer units of power. One builder sums it up: "If the railroads want an electric locomotive, we'll build it. If they want a turbine, we'll build it to the best of technological capability. But railroads, and the rest of these people talking about new kinds of power, had better remember one thing. The diesel-electric is a moving target. I hope the people plugging new kinds of power are fully aware of where we are with the diesel-electric."

If you paraphrase that just a bit, there's one conclusion to be reached: Advances in the state-of-the-art with the d-e are the biggest deterrent to a plunge into elecrification or something else. And the next 10 years should show whether new economic factors or operational demands can overcome the diesel's edge. From a strictly practical standpoint, this seems less than likely.

• **From a political or social standpoint,** however, there's cause to wonder—as, for example, in considering what might happen if some ordered-reassessment of natural-resource consumption might be made. Railroads could then wind up as consumers of central-station nuclear power, while fossil-fuel products are assigned to the air and highway carriers which have less capability for use of generating-station output.

Be it equipment or power, however, hardware is just one aspect of freight-hauling technology. Theories of supply and management—call it the software—will be no less important in determining where the industry will be, as the 20th century bows out.

• **Top-flight management is asking** a lot of questions—conceding that railroads have not-infrequently neglected long-range planning, and knowing that the penalties for this neglect cannot be long endured. Among the questions—some basic, some far-out:

Does a railroad belong in the carbuilding business, or will the captive carshop go the way of the captive locomotive-erection shop? Should a railroad actually supply freight-carrying vehicles, or should its responsibility end with supply of route and power? Are railroads investing wisely in equipment, or are decisions being made without proper foundation? What's going to happen as railway suppliers in increasing numbers diversify into other enterprises? Can power and equipment purchases somehow be stabilized, to help suppliers maintain their production capability and to put new equipment to work when it's needed and not after the fact? Can labor and governmental restrictions be eased, so that maximum benefits can be obtained from whatever new technology is developed? Has transportation become more capital-intensive and less labor-intensive, to a degree where imbalance hurts?

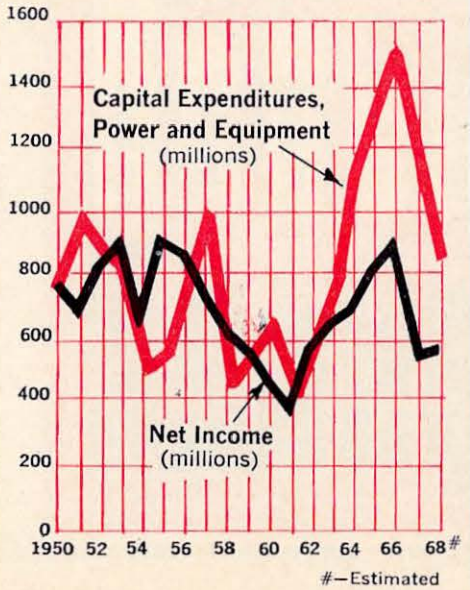
• **To an increasing extent, managements** are questioning both the planning and the timing of technological investment. A top financial man, for instance, looks at the situation and wonders: "Maybe it's time to hold back on this headlong rush to buy . . . and take another look. In transportation, the reward for inept investment is painful erosion of assets." Timing of equipment acquisitions is another, but related, problem. Ideally, trend-lines for GNP, railroad fleet capability, traffic handled and equipment ordered/delivered would show up along generally parallel courses. They don't. As the charts indicate, often as not the opposite is true: Capacity and traffic-handled move in opposing directions, orders and deliveries lag behind real-time need, while GNP (as one measure of available business) climb steadily.

Solutions to this kind of problem are easier stated than effected. Possibly, the answers lie in faster and more accurate market forecasting, expansion of leasing or pooling operations, development of long-range equipment programs which retain an essential flexibility but still provide a measure of order/delivery stability.

It could be argued that the term "breakthrough" is a bad one to use in forecasting the railroad industry's power/equipment future. But by at least one dictionary definition, it's brutally accurate: "Breakthrough—the act, result or place of breaking through against resistance, as in warfare."

• **To any sharp change** in technological direction, there will be resistance. If there is to be a sharp change, or even a speed-up in evolutionary technology, there must be a dedication or a commitment not unlike that of Grant before Richmond or Churchill in the Battle of Britain. Railroads, one long-time observer muses, are not used to making the long-term commitments which may be needed in shaping tomorrow's railroads. But they're going to get used to it, because there may not be any alternative. And the signs of commitment are showing up—in bolder research, in new dedication to planning, in a willingness to challenge the past and, most importantly, in a willingness to challenge the future.

Equipment spending: Greater than net, more often than not



NO. 4 TOMORROW'S RAILROADS

The Fixed Plant

In all of transportation, only the rail road fights the competitive battles of the 20th century from a 19th-century base of operations.

In every form of transportation, vehicle speed and power and carrying capacity have gone up, steadily up. But double-bottom highway rigs don't have to contend with two-lane blacktop roads. Intercontinental jets aren't taking off from fields the World War I Jenny used. King-size barge tows don't ply the same tricky channels that made the old-time skippers curse.

• **Only the railroad** has managed to superimpose increases in vehicle speed, power and carrying capacity on a fixed plant which owes its basic location, design and construction to the 1800s. Some might call this, correctly, a tribute to the practicality of guided motion, the steel wheel on the steel rail and all that. But the mind boggles at the thought of the competitive muscle railroads could flex today, *if* plant improvement had been brought along parallel with vehicle improvement. More to the point, the mind gets badly twisted up at the thought of (1) trying to pile still greater speeds and loads atop the existing plant, or (2) trying to compete in tomorrow's transport universe without the capability for those greater speeds and loads.

A civil engineer sums it up: "Pressures are building up, almost irresistibly, to the point where important changes in track structure will have to be made."

The problem is partly mental and largely financial. It is technological only to the extent that mental and financial blocks have made it so.

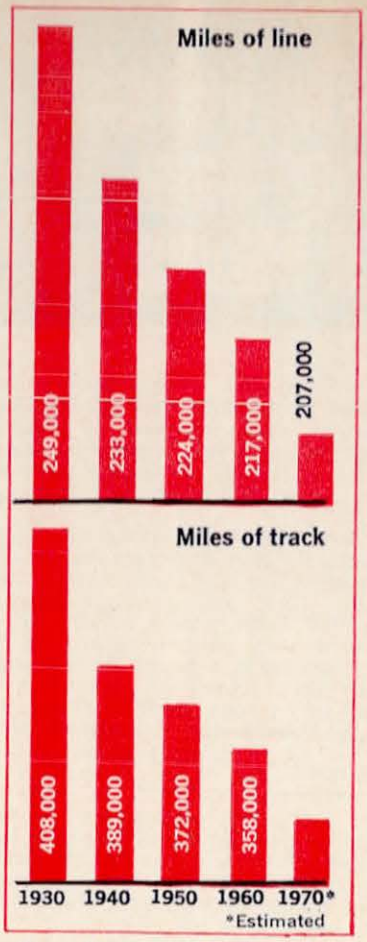
• **Training and experience** can be blamed for whatever blocks exist in attitude and outlook. Engineering is a precise thing. Engineers are taught that certain axioms are invariably true, that certain principles are immune to challenge. And the very nature of an engineering training, one top railroad officer theorizes, "may tend to solidify and polarize one's views on how to reach out for new solutions under a prescribed set of conditions. It may influence a man toward conformity with present methods rather than toward a more skeptical challenging of those methods."

• **Financial blocks** to plant improvement are even more difficult to cope with. If railroads are to be rebuilt to super-railroad standards, massive injections of capital will be required. This kind of money has not been available in the past. It is not available today. But it will have to be found, for tomorrow. At the same time, engineers are convinced that plant maintenance policies —stop-and-go policies that tie maintenance spending to revenue fluctuations—have proved bankrupt. Under such conditions, engineers contend, track cannot be kept up to required standards . . . maintenance money is wasted . . . management deprives itself of the opportunity to get better-maintained property at lower over-all cost through planning and execution of M/W work on a long-range basis that considers both current and future needs.

• **A look at the record** only serves to underscore the need for new ideas and new dollars, in large quantities. In the past two decades, neither capital spending nor plant maintenance expense has fluctuated markedly, in dollar terms. But the dollars are buying less. Railroads in the late 1960s are laying about half as much new rail each year as they did in the early '50s. Railroads now are renewing crossties at a rate little more than half of the 1951-55 period. How about improvement spending? Continuous welded rail is now in place in only about 22,000 track miles, which figures out to about 10% of the aggregate length of roadway of all line-haul railways. Curve and grade improvement is even less noticeable. By one estimate, the original profile is still there on about 95% of the 100,000 miles of railroad over which the bulk of rail service is performed.

What improvement goals must be set? One veteran of the railroad wars puts it bluntly: "The principal single classification of expenditures required to close the technological gap on the railroads will be to reduce grades and curves on primary main lines to the standards required for the most economical running of trains of maximum tonnages and at maximum speeds in their respective classes of service."

• **There are alternatives** to this kind of program—but they appear to be limited. Development of new types of equipment—such as the multi-wheeled vehicle with individual wheel powering and suspension, noted in Tomorrow's Railroads No. 3, March 17/24, might permit improved operation over roadway built to less-than-super standards. Development of the minitrain concept might ease the pressures to build for eternity in both equipment and plant. Still, the need for plant improvement is and will be both obvious and unavoidable.



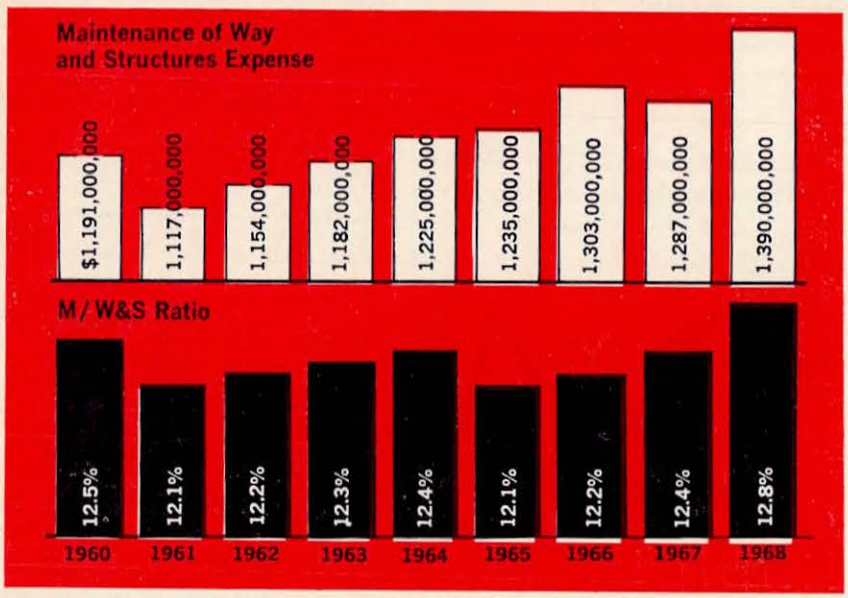
While the railway plant slims down . . .

What criteria can be set? First, tomorrow's super-railroad structure must be designed for speed, for capacity and for speed-plus-capacity. Its signaling and other control systems must permit flexibility. It must be economical to maintain. And it must be adequately financed.

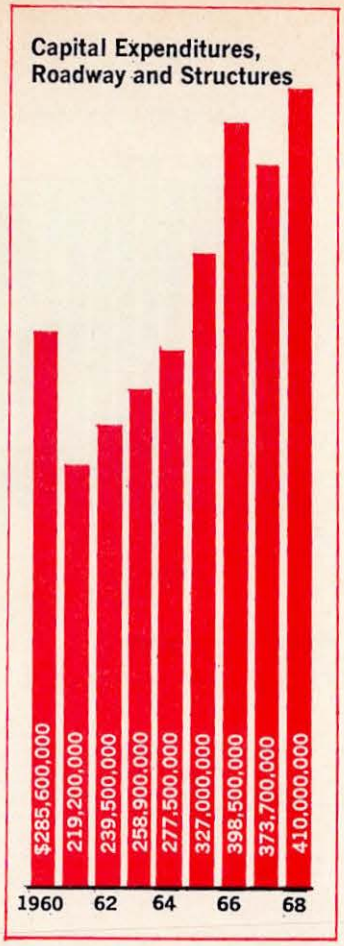
• **The key is financing.** The super-railroad will cost billions, just as the interstate system of super-highways is costing billions. Railroads alone cannot pay the price, today. Even assuming that the rail merger movement continues and that traffic will increasingly be concentrated on a network of primary lines, it's difficult to see how the required capital can be generated internally.

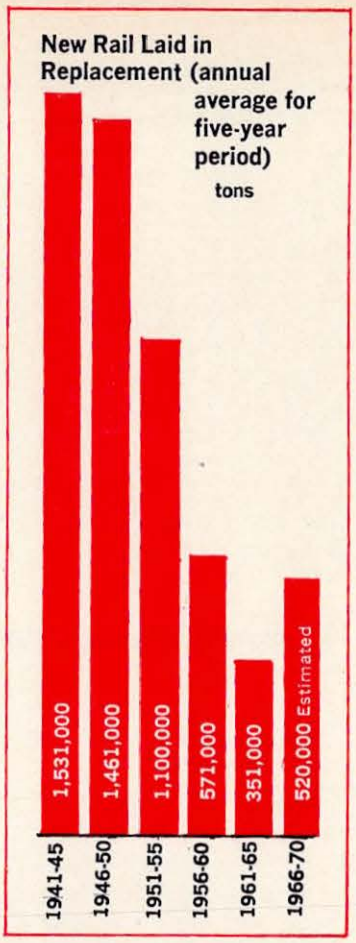
Some say that only the federal government, with its financing capabilities, can afford the required rebuilding job. Some ponder nationalization. Some propose, instead, a railroad/government partnership under which the plant would be sold to government and operated by privately-owned railroads on a lease-back arrangement.

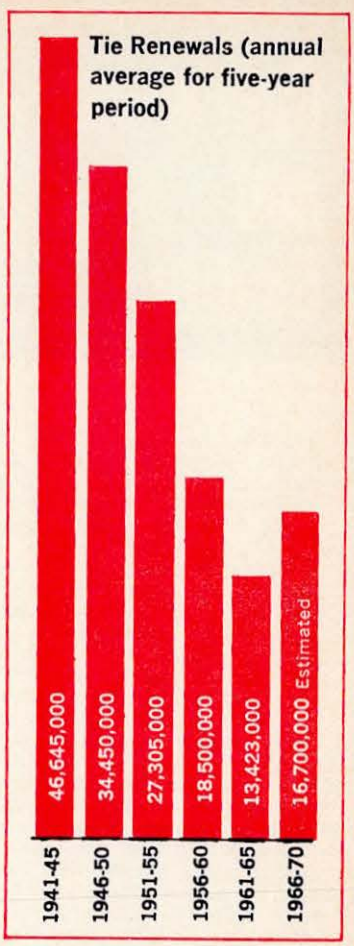
• **Others think** a less drastic approach might work. They ponder the ways in which plant improvements in other forms of transportation are financed. They consider the prospects of a change in national policy which would permit the building not just of a national highway trust fund but of a national transportation-development trust fund. No such proposal has been clearly enunciated. But it may be coming, out of the economic facts of life as they exist. If a new railroad profile is to be etched across the country—with, for example, maximum 0.3% ruling grades on all heavy-density lines and maximum 0.5% grades on all other principal lines, excepting only mountain



Maintenance spending shows a dollar increase—but the ratio moves hardly at all.







. . . improvement spending rises slowly. **Rail replacement and tie renewals . . .** **a long decline, finally reversed?**

crossings, there may be no choice other than to form such an industry/government combine.

Placed beside the financing problems, the technological problems of building tomorrow's railroads look small. But a great amount of technological development still remains to be done—both in designing an improved running surface and in maintaining it.

• **Studies have been made**—rather quietly, up to this point. Various types of construction have been screened through computer programs. Service tests of the best prospects will begin this year, in a cooperative railroad/government project. Eight separate types of track-support structure will be built into a heavy-traffic, high-speed main line. Hopefully, tentative evaluations can be made within about two years. Hopefully, tentative conclusions can be reached then—although each type of construction will be in track for only a short distance, and long-term track-settlement characteristics in different types of earth may be difficult to judge.

The objective is development of a more stable structure. It's taken for granted that such track will have a higher initial cost. But, as one sponsor of the test program notes, "there should be a trade-off between increased construction cost and lower maintenance cost."

• **A similar trade-off**—leading to lower maintenance expense—should also come from development of improved track-maintenance equipment. The need, engineers believe, is two-fold—first, for track-evaluation equipment which will feed data to a computer and thus establish work-priorities; and then for maintenance machines which will do multiple jobs in one-pass operation.

Both the track-evaluation equipment and the multiple-use machines are available, here and in Europe. What's needed is the decision to commit the resources required for long-term, continuing programs.

• **It's been said that M/W budgeting** covers five major categories: (1) Repairs and other improvements to be undertaken for safety reasons; (2) items required by governmental authorities; (3) items considered essential to meet competition; (4) projects which will cut operating costs; and (5) programs for a general upgrading of the property to make competition and not just to meet it.

By those terms, a budget becomes a statement of goals to be achieved. The unfortunate fact is, however, that not enough roads can afford—or think they can afford—to go much beyond Points (1) and (2). And this is not the route to creation of a more capable and more competitive industry.

It was a railroad man who made this assessment of what must be done to turn today's railroads into tomorrow's:

• **"Recent annual average** rail and tie replacements are completely inadequate criteria for the future, especially with the heavier cars and faster trains taking their special toll of remaining potential service life . . . At the increasingly high speeds at which freight trains are now operating, the improved riding qualities of welded rail become an important factor of safety and of prevention of damage to freight and wear-and-tear on equipment. Jointed rail is now completely out-of-date for high-speed, heavy-density main track. Wherever it exists, the track is obsolete to that extent and another technological gap exists . . . When one observes the passage of a heavy, high-speed train running over even well-maintained track constructed to the highest specifications of material, the reference to track as 'the permanent way' appears a farce. Track flexes in a wave motion under the passage of heavy wheels supporting ponderous loads. After taking note of this condition and considering M/W expenditures and reflecting upon the use of concrete in highway construction, I have long believed that the most efficient and safest railroad track will be comprised of rails laid on concrete beams embedded in concrete slabs—with ties anchored to the slabs, with the rails resting on heavy tie pads and tie plates and fastened to the ties by powerful clips."

• **Such construction** would be tremendously expensive—for new or for replacement track. But "many improvements and developments that are now economically impossible may well become the preferred and even essential practice on 'super-railroads.' "

There are, in short, no simple solutions—no cheap solutions—to the problem of upgrading plant.

Perhaps the future—the far-off future—holds an exotic new form of surface transportation. Perhaps the track air-cushion vehicle will prove out, from both a technological and an economic standpoint. Perhaps something even more unconventional—some form of vacuum-tube principle—will be a 21st- or 22nd-century answer to the basic problem of moving people and goods safely and swiftly.

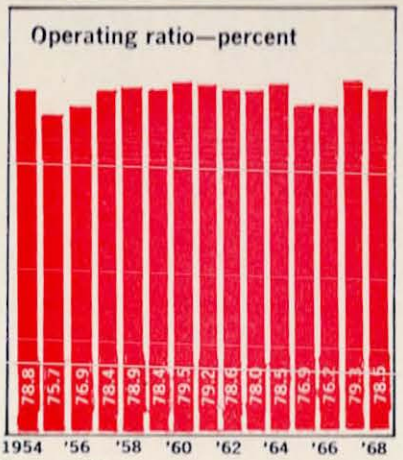
• **It seems reasonable** to expect, however, that the 21st century will dawn with something akin to today's railroad still on the premises. The advantages of guided motion and steel-on-steel have not been outworn or outmoded. The need is for improvement in basically sound principles—and for development of practicable means of financing this improvement.

Negatively, railroads would need this improvement if for no other reason than to stem the tide of derailments. Positively, they need it to meet tomorrow's traffic demands. It was an engineer who said it: "The needs are immediate. They demand immediate attention."

NO. 5 TOMORROW'S RAILROADS

Operations and Quality

Despite economies, cost ratios are inching up.



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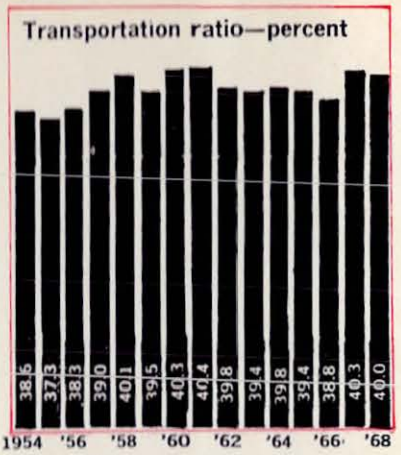

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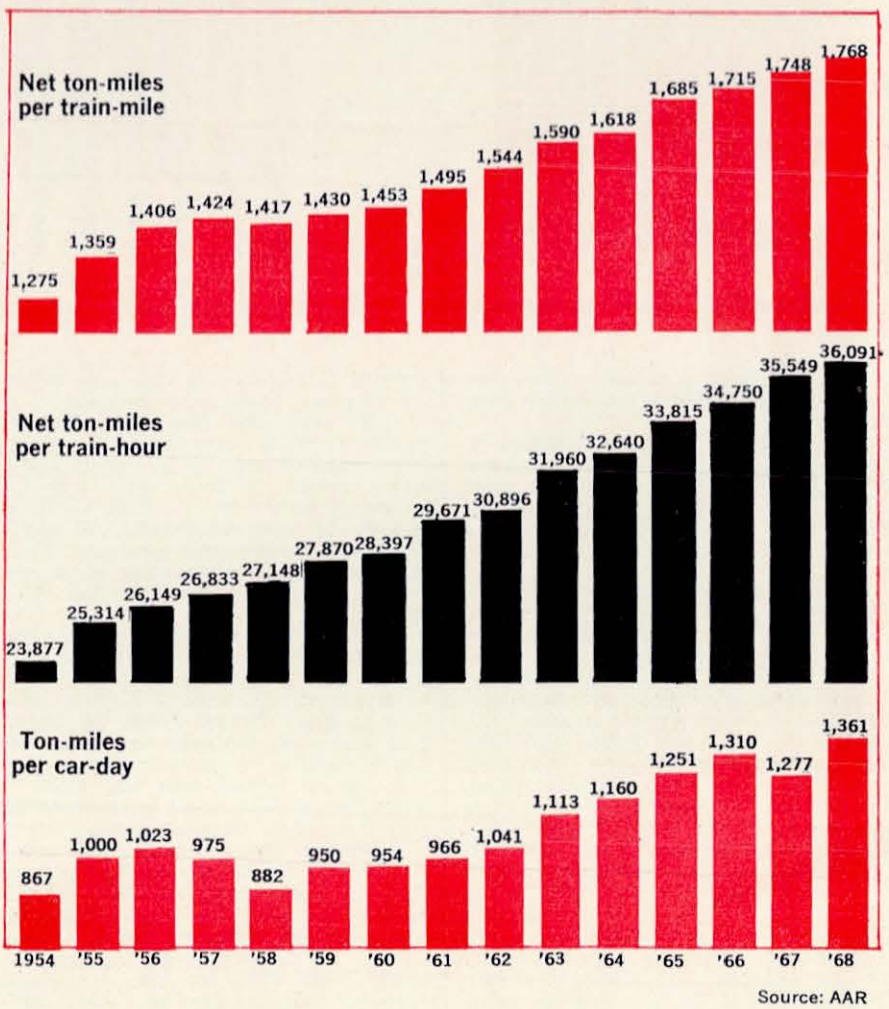
By efficiency standards, railroads show steady improvement.



Source: AAR

This generation of railroad men is in a unique position. It can turn the industry around . . . it can build a strong national railroad system . . . it can lay the groundwork for a strong national transportation system. Or, it can abandon hope . . . let the agonizing slide continue . . . lay the groundwork for nationalization of the only form of transportation suited to serve as the base for a true intermodal or multimodal distribution system.

The choice is not entirely the industry's to make. But a wide range of options is open to railroad men. And it will be the skill of railroad men in deciding between and among these options that determines whether railroads come back or fall back.

• **Service is the key**—high-quality, dependable, reliable service, intelligently priced and vigorously policed. Transportation companies can make money with this kind of service, because shippers will pay for it. Shippers will even pay a premium for it, and they prove it every time they quit the railroads and switch to truck or air service.

Railroad service today does not enjoy a reputation for quality, dependability or reliability. Railroad men themselves complain that pricing, too often, is unimaginative and based more on tradition than fact. Again too often, the policing of service is haphazard—the negative reaction to complaint rather than the positive development of programs that force movement.

• **Here, there is a curious fact** to consider: Those roads that have established quality-control programs . . . placed emphasis on reliability all along the line . . . set performance standards and then lived by them—those roads have found that business improves. And the experience has been a profitable one, even though they may be spending more dollars to move freight.

Service itself is an amalgam. It is an adequate car supply, an adequate power supply. It is manpower, and a track structure that will withstand today's loads and speeds. It is brainpower and computer-power and information systems. It is—perhaps above all else—communication, or the ability to know and understand what the customer needs, why he needs it and how it can be provided on a basis of mutual benefit.

• **This kind of understanding** may or may not be as sharp as it should be. One major shipper—spending more than $30 million a year with railroads—puts it this way: "Railroad management obviously recognizes that railroads compete with other railroads. Railroad management also recognizes that railroads also compete with other forms of transportation. But how many people in railroad management recognize that transportation competes with the inventories of physical things that might or might not be transported? How much of railroad management recognizes competition between transportation and warehouses, between transportation and production facilities?"

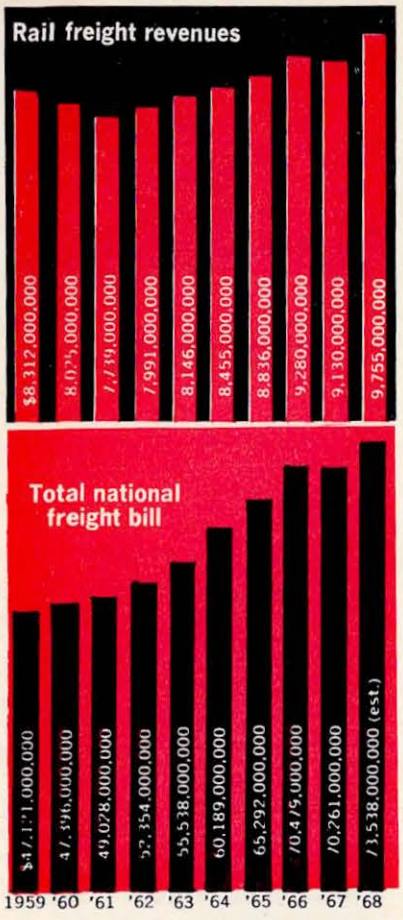
It's this shipper's suggestion that rail management is not really aware of competition other than that provided by another railroad or another form of transportation—"and as such, management is neither efficient nor imaginative."

• **Rightly or wrongly,** shippers also question railroad views of technology. Their point: Technological progress has been largely cost-oriented, not service-oriented. Railroad men would argue the point—but the industry's labor problems, its development as a capital-intensive rather than a labor-intensive business, have lent strength to this shipper view.

If railroads are going to start growing with the country, service changes will have to be made. They won't come easy. But the demand is there.

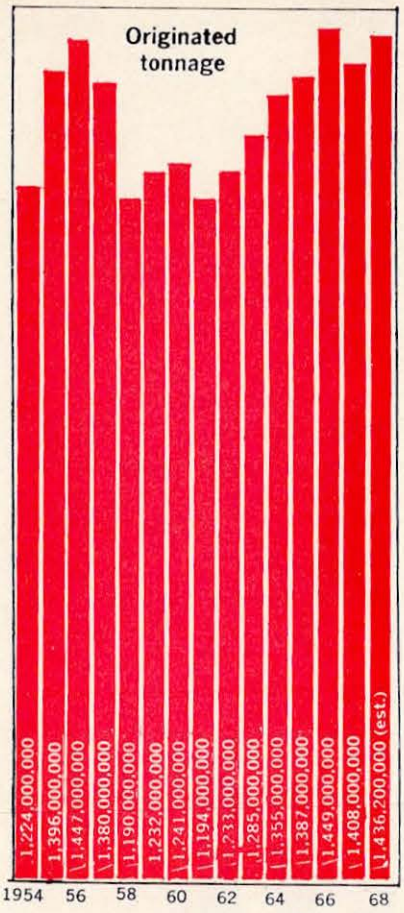
Shippers have an increasing number of options available. The Interstate System gives motor carriers a capability undreamed of just a few years ago. Jumbo jets will make air-freight operations far more competitive than ever before. Barge competition can't be overlooked, as the inland waterways system is expanded. Railroad traffic is threatened at the top, at the bottom and in

Rail's share of freight dollars shrinks.



Sources: TAA, AAR

Rail tonnage has improved only slightly.



Source: AAR

the middle. Top railroad men—especially those who will be around for a while—know that service improvement has to be the No. 1 target, for prosperity or even for survival.

• **The competition,** not really being modest about its success, confirms the fact: "The customer is the kingpin," says one motor carrier's president. "Railroad people just don't understand or won't understand that truckers charge higher rates, much higher rates in many cases—and that every bit of freight we get is because of our service. We don't get freight because we have low rates."

In contrast, a railroad chief executive takes this view of his industry: Individual railroads have "proved incapable of harmoniously working together in the performance of many functions inherent in an integrated national transportation system. Not only has joint service often been more costly and slow, but the individual railroads—in constantly fighting each other over the terms for conducting it—have also been hurting themselves and destroying the integrity of the national system itself."

• **What's needed,** for railroad service improvement? Observers can cite a long list of requirements, most of them well-known if not widely-adopted. Merger of railroads, for instance, is regarded as a service-improvement measure (though some shippers, with recent sad experience, would question this). At the same time, there are a number of less-accepted service principles which may deserve a serious look.

One is that quality-control programs should be made less a scoreboard operation and more a goal-setting proposition. It's logical that control programs should *start* with measurements of present performance and the setting of standards based on those measurements. But if the customer is unimpressed with present performance, he's not likely to put his faith—or his dollars—behind any "quality control" program that does not involve a continuing upgrading of both the standards and the performance. Put bluntly, quality control will work best to increase railroad profitability when it's oriented toward service *improvement* and control.

• **Another principle** is that railroads must get closer to the customer. Assignment of market-managers is a first step, but there are others that can be taken. On tomorrow's railroad, for example, there may be a great many management people whose work experience includes both operating and sales/marketing assignments. There may also be a kind of "student exchange" program, through which the carrier and the customer trade personnel, so that the buyer of transportation learns more about the seller's problems and operations, and vice versa.

• **Rail management** doesn't lack options, in areas such as these. It is in more of a bind, however, in restructuring operations in the way some observers think it must, in tomorrow's transport market.

These observers see too much of the past, in operating theories and practices. They see a kind of operation that worked well in a monopoly era—maximum tonnage trains, elaborate terminals, volume orientation. But, as one observer puts it, "in a competitive market, this approach can start to kill you. More and more unpredictability for individual units is created. The failure-rate for both equipment and people is maximized. The result is that more and more traffic is diverted to more reliable means of transportation."

• **Marketing men**—those who live today and see tomorrow—argue that railroads have given up a lot of business that could be regained. Despite the competition of motor and air carriers, they want to re-think the long-haul market. Despite the competition of motor carriers, they want to re-think the short-haul market—from zero-mileage on up. These marketing people think railroads can more than hold their own—if certain new conditions can be created.

Help will be needed—help from the brotherhoods and help (or at least tolerance) from government.

• **As one railroad chief executive** points out, all trains are not created equal. There are minitrains and maxitrains—and manning requirements are not the same. Organized labor's acceptance of this fact—that some proposed train operations could be handled safely and efficiently by two crewmen or perhaps even by one man—would go a long way toward bringing competition back to certain segments of the market. Labor's long-run gain, of course, could be a net increase in jobs as business is rebuilt. There would be risk involved, but it could be made minimal. And labor's leaders themselves are coming to realize that the future cannot be supported by the past.

• **Government will have** a different role—actually a more passive than active one. If railroads can improve service quality, if railroads can strengthen their long-haul capability and develop new short-haul capability, competitors can be expected to react in several ways. One, almost certainly, will involve a campaign before the regulatory agencies—with railroads forced to defend themselves against charges of discrimination, unfair competition, destructive competition. Under the circumstances, government—if it is readily interested in fostering sound, efficient and economical transportation—must remain as flexible as the law allows. At the same time, the law itself deserves constant scrutiny—and whatever changes are needed to bring it in line with current conditions.

• **When everything is considered,** one of the least of the railroads' problems in service improvement is the technological problem. Technology that produces cost efficiency can also produce service efficiency. The computer, for example, can crank out reports that would take an army of clerks weeks or months to produce. But the computer can also be used as a diagnostic tool to pinpoint service problems and—with proper programming—to consider all fixed and variable factors and tell management what service-improvement proposals will and won't work.

Technology of a different sort can be applied to reducing service failures and improving reliability in actual operations. More efficient methods of in-track rail welding are on the way, and they should permit substantial upgrading of both mainline and secondary routes. Also on the way is a kind of diagnostic center for equipment—a one-spot, in-motion checkpoint which will flag all manner of defects, existing and potential. Both of these innovations hold opportunity for cost reduction. Both also hold opportunity for significant service improvement.

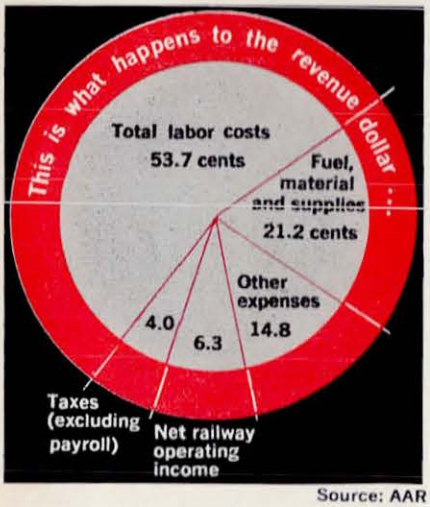
• **In the end,** however, technology—like the brotherhoods and government—can only help to solve the service problem. The initiative belongs to the railroad industry—as individual companies and as an industry.

The motor-carrier industry and the airline industry are segmented, just as railroads are. But there *are* coast-to-coast truck lines and there *are* coast-to-coast airlines—and their existence can serve to point up the competitive need for inter-railroad cooperation. Yet, one industry observer contends, "too frequently in railroading, the commitment to serve does not extend throughout. Too often, the positive efforts of one road are negated by a less-than-attentive road in the routing. Railroads haven't really grasped the importance and significance of the inter-dependence of railroads as an industry."

NO. 6 TOMORROW'S RAILROADS

Management and the Ability to Manage

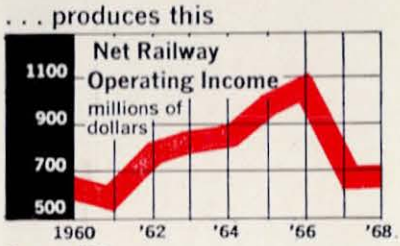
1. Of all the problems facing rail management today, one of the greatest is the dollar problem . . .



Source: AAR

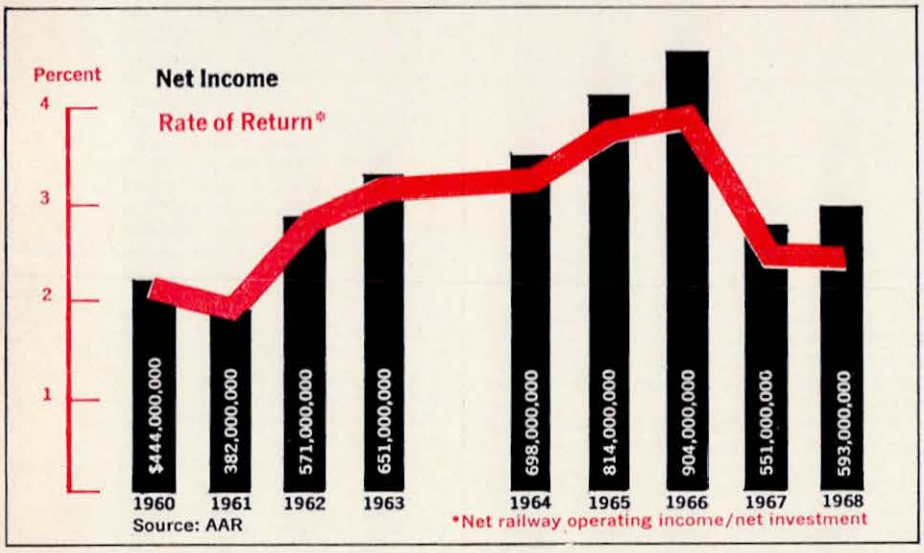
2. Balancing revenues vs expenses

. . . produces this

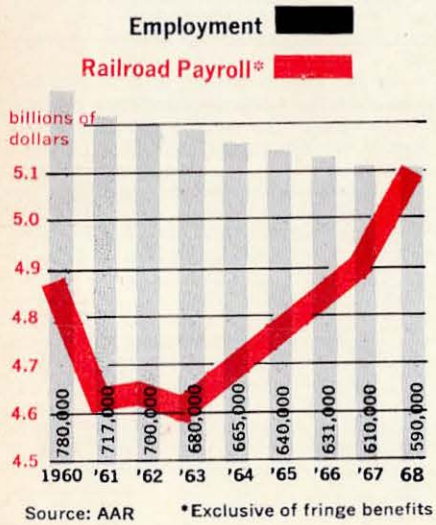


Source: AAR

3. This is what's left—and the rate of return

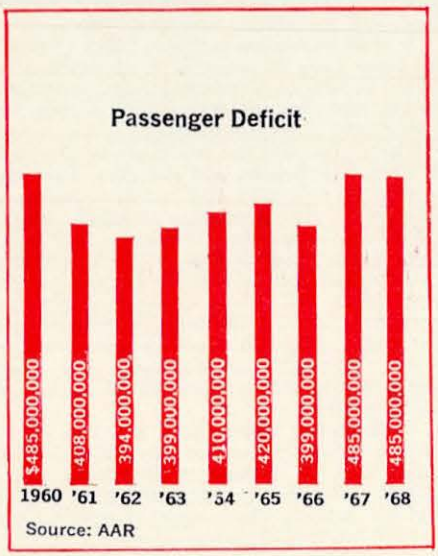


4. Employment declines, but wage costs increase



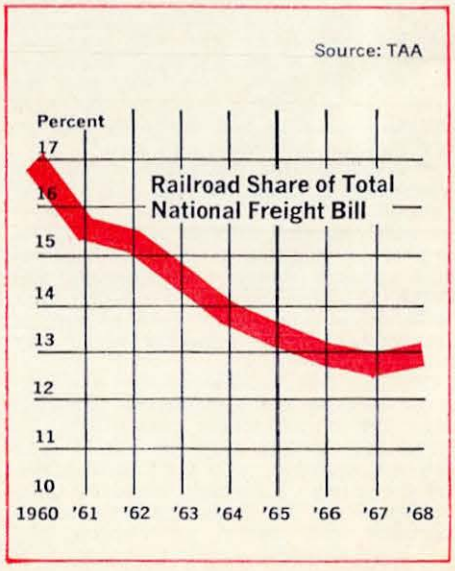
Source: AAR *Exclusive of fringe benefits

5. The passenger deficit remains dangerously high



Source: AAR

6. And the share of the freight market is smaller



Not many parents today are raising their sons to be railroad presidents—and that's unfortunate. It demonstrates a certain lack of depth-perception—because tomorrow's railroads, tomorrow's transportation systems, may offer opportunities that the present generation of managers can only dream about.

These opportunities will not come automatically. But they will come. Logic cannot be denied forever, and logic demands that management with the ability to manage be given the freedom to manage.

• **This is one very key point** in what's known as the railroad (or transportation) problem. Rail management today is more competent, more efficient—generally, just a lot better—than critics are willing to concede. At the same time, too many people are looking over management's shoulder. Among all industrial managers, rail managers have the dubious distinction of being the most regulated, the most restricted.

• **Rail management** is restricted in its product development and product pricing. It is restricted in its use of manpower. It follows that it is restricted in its ability to earn and in its access to capital. Rail management has its obligation to the shareholders and to the public at large. These obligations are not always compatible, but each must be met. Rail management is fair game for a network of regulators, stretching from the Interstate Commerce Commission on down to the town council of any hamlet ambitious enough to have one. Courts at all levels can say what railroads

may and may not do. Congress and the state legislatures are never averse to dabbling in railroad affairs, especially when the dabbling involves an issue which is politically popular, or can be made so.

The wonder is not that railroad managements have problems. The wonder is that they have survived them.

Rail management, in short, has the *ability* to manage. What it lacks is the ability to *manage*.

• **Tomorrow's railroads** can't be built on a foundation like that. But a new foundation can be constructed only with a helping hand from the outside. Perhaps railroads have not gone as far as they can in self-help. But they're getting closer to that max-point. If it's reached, and if railroads find they can go no farther—then, this nation will find itself with a transportation crisis like none other that ever existed.

• **Critics of the industry** and its managers sometimes seem to be everywhere. But there is this common denominator: Each has an axe to grind. Railroad pricing is a matter for public debate, so it's to the customer's advantage to picture railroads as inefficient enterprises which could make-do without price increases if only they would become modern. Labor unions walk a thin line in threatening (and executing) strikes, but by portraying management as the villain they have usually been able to head off violent reaction by government. Politicians are still cashing in on "the public be damned" in a fashion that sometimes borders on outright demagoguery.

• **Under the circumstances,** what is rail management doing—what *can* rail management do—to prepare for the orderly progression of things from 1970 to 1980 to 1990 to 2000 and beyond? Rail management can do—and is doing—quite a bit.

—Railroads are spending unprecedented sums of money for additions and betterments. Sometimes, improvement spending gets out of phase, but with hot competition for limited dollars this can be expected. And the fact remains that during the 1960s railroads have invested more money in upgrading of plant and equipment than in any comparable period in history.

—Managements are diversifying, to the limit of the law. They cannot diversify into other forms of transportation, of course, until antiquated law is changed. But, via the holding-company route, they can get into manufacturing, real estate, research. Consumer demand will ultimately permit creation of multi-modal transportation companies. In the meantime, hopefully, other diversifications will help to create a more stable financial environment for railroads.

—Managements are talking to rail labor on new bases. No longer is the dialog solely a matter of demand vs. counter-demand. Now, management and labor are discussing ways and means of building new businesses, with consequent benefits both to the company and to the people who work for it. For their part, labor's leaders are demonstrating more interest in joint progress—and, perhaps, a greater grasp of changes which must be made.

—Railroads are putting new emphasis on service quality. The computer can never be the total answer to operational and service problems, but it is capable of feeding managers the kind of knowledge needed to run a current operation instead of an historic one.

• **So, the record would indicate** that managements are taking just about every self-help step available to them. The problem is two-fold. Not enough steps are, in fact, available; and not enough attention is paid to the complicated process of communicating goals from the deciders to the doers.

• **There is another important element** in management's preparation for the future: For 20 years, management has been engaged in its own ideological struggle—and only now does it seem that the battle may be ending.

After World War II, one chief executive recalls, "railroads retreated toward 'safe' business, which might be described as long-heavy-slow tonnage. It *was* tonnage that enabled railroad men to continue being railroad men. They could concentrate on efficiency rather than get involved in the more complicated question, 'Do transportation buyers want to buy efficiency?' It was in this era that the rail industry advertised the curiously irrelevant fact that the steel wheel on a steel rail is the most efficient mode of transport known to man. It was also during this era that the employee head-count became an index to carrier efficiency."

The competition was only too happy to let railroads have what they wanted: "Truckers, barge operators and airlines prospered. Railroads retreated, relative to both the competition and the economy."

• **Then, late in the 1950s,** some theorists began questioning "the wisdom of the industry's retreat to captive tonnages and the traditional fetishes surrounding operational efficiency. A few prophets saw that the retreat from competition guaranteed the industry a smaller and smaller piece of the economy's action. They began arguing for short-light-fast tonnage as the answer, despite the fact that such business is more labor-intensive and that such activity violates most of the standard measures of rail efficiency. 'Create what shippers want, even if you have to charge more'—that's what such an argument adds up to. So, the 1960s, in a sense, produced a struggle between those who felt efficiency ultimately triumphed in competition and those who argued that profits were the key to competitive effectiveness."

In a way, this new-breed railroader says, investment decisions reflect this "industry schizophrenia. Bigger cars, more powerful locomotives, more elaborate electronic yards, heavier rail, shrinking of passenger and other moribund services, mergers, abandonment of short-haul traffic, automated plant maintenance—all are achievements in the mainstream of classical rail theory regarding efficiency. On the other hand, piggyback, container development, Bee-Line service, short-train operation, Rent-A-Train and other premium services —all are moves in another direction. Such services are not as efficient as ordinary rail services. But they are dramatically more saleable."

• **What's the key point** to be made, in this chief executive's view? "For the first time since World War II, substantial investment and an increasing amount of managerial effort is being directed at both saleability and efficiency of product. This may well be the silver lining to the industry's cloudy outlook."

Another long-time observer of the industry recognizes this efficiency/saleability battle—and adds another factor: "Rail management must recognize that the problems facing it are more economic and human than technological. In this context, railroads must—and will—conquer the computer. Alone, the computer won't solve any of the problems, economic or human or even technological. But, properly used, how vital it is to the solution of all three!"

• **And as for management itself?** "Management will begin to manage. Top executives won't be characterized as operating men or traffic men or lawyers. They'll be recognized as businessmen of well-rounded training and experience. They'll have the ability to plan, to organize, to delegate. And they will attract to their management teams the specialists who recognize the merit in working under a good boss."

• **Planning, on tomorrow's railroad,** will be a top-priority item. Looking ahead, it's possible to see the creation of planning teams in each major line area of responsibility—people sufficiently detached from day-to-day activities to be able to plan and experiment with the activities of tomorrow. These people could give railroads a new measure of control over their own destinies—by bringing back to the railroad much of the responsibility for planning future services and future hardware. There would be, of course, the closest contact with shippers, receivers, suppliers. But the initiative would swing back toward the transportation company.

Unfortunately, not every look-ahead shows such exciting prospects. Unless management exerts itself to the utmost in making needed changes, and unless outside influences can be persuaded to work with railroads in making needed changes—then railroads may live up to the worst expectations of the pessimists.

• **As these pessimists see it,** railroads could be headed for deep financial water in a few years. Theirs is the "or else" side of the equation.

Their arithmetic is not really difficult. If certain assumptions are made on a projection-of-history basis—on wage rates, employment, ton-miles, revenues per ton-mile —a picture takes shape rather quickly. It shows an industry which, regarded as a whole, has staggering deficits in its net income and net railway operating income accounts—with nothing for paying off debt, nothing for dividends, nothing for capital-improvement spending. Further rounds of rate increases could thus become mandatory—and inevitably this means there will be new service-improvement pressures on management.

• **One railroad chief executive** sums up the future this way: "The challenge of growth facing our industry is exhilarating. But the environment is disturbing."

• **Another top-level manager** talks of many responsibilities—but none greater than those of preparing for tomorrow's management: "When we talk about future management and its ability to manage, we're necessarily talking about the impressionable young people we're hiring today. They come to us, well trained in the latest business management techniques. They are the people we must ground in the day-to-day operations of the railroad, so that they know the in's and out's of this complex business. At the same time, we must be very cautious to insure that these people do not become tied down in their thinking by existing or past practices. These people will have a better glimpse into the future than we do who are currently in management. Their imagination must be encouraged all of the time that they are working on day-to-day things—so that progress can be made on a steady basis toward the future goals which are established."

• **Clearly, tomorrow's railroad** will be no place for a manager who puts all his faith in precedent. Today's managers, breaking with the past, are seeing to that —as they set a whole new set of ground-rules for tomorrow.

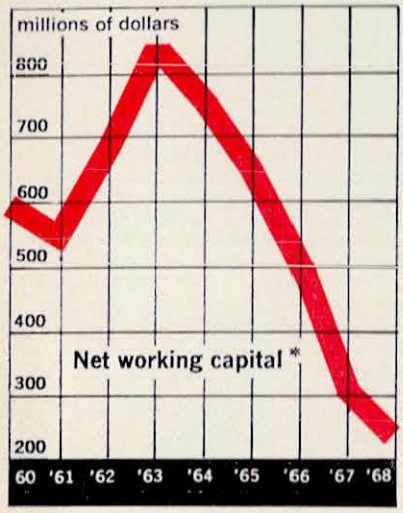
• **Operating departments,** so the story goes, are stodgy and slow to change. But this is an operating man talking: "Too much of the activity in our industry has been brought on by reaction to a set of conditions. The emphasis must be placed on action—the initiative to improve ourselves and our competitive position. There's a great future in the railroad industry—but only so long as all of us go out to meet it."

NO. 7 TOMORROW'S RAILROADS

Super-Railroads Need Super-Financing

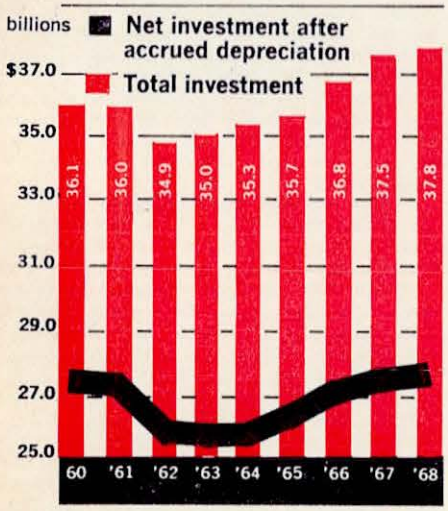
THE FINANCIAL PROBLEM IS A HARSH ONE . . .

1. Net working capital is dropping sharply



*End of year

2. Railroad investment is climbing slowly



Money isn't everything. But, as a poor man once said, it seems to be 'way ahead of whatever's in second place.

Money isn't everything, even to a railroad. But somewhere, in every equation dealing with the railroads of tomorrow, there's a dollar sign. And it looms bigger and bigger as time goes by.

Unfortunately, there is still no accurate way to measure the size of the investment which must be made. In recent years, the industry has been getting by with capital spending averaging about $1.5 billion per year. Few observers want to regard this as an adequate figure. Estimates of the real investment need range up to $5 billion per year, for at least a decade.

• **One problem in trying to assess** capital requirements lies in the nature of the business itself. Railroads are privately-owned. There are a great many of them, and their planning is necessarily done largely on an individual basis. There is no strong pressure group pleading a case for the public interest in connection with railway improvement programs. There is no "public works" aspect to railway plant improvement, as there is with highway, airway/airport or inland waterway plant improvement.

Railroads are also subject to a certain discipline in their capital planning—a discipline which is less binding in other forms of transportaton. Railroads must finance their own programs. They must also take the responsibility for the market or economic results of the programs they carry out.

• **Questions might be raised** regarding the bases on which transportation plans are made. Plant-improvement planning for highways, for airways/airports, for the inland-waterway system, is made on a basis of predicted or assumed expansion. Plant-improvement planning for railroads reflects growth factors to a lesser extent.

So there is a transportation-planning gap —one which must be closed, if transportation is to meet tomorrow's demands, It's been one analyst's comment that "in view of the traffic significance and the general significance of the railroads, this gap must be regarded as calamitous."

• **Better and more comprehensive** planning is one requirement which must be met. But there are others.

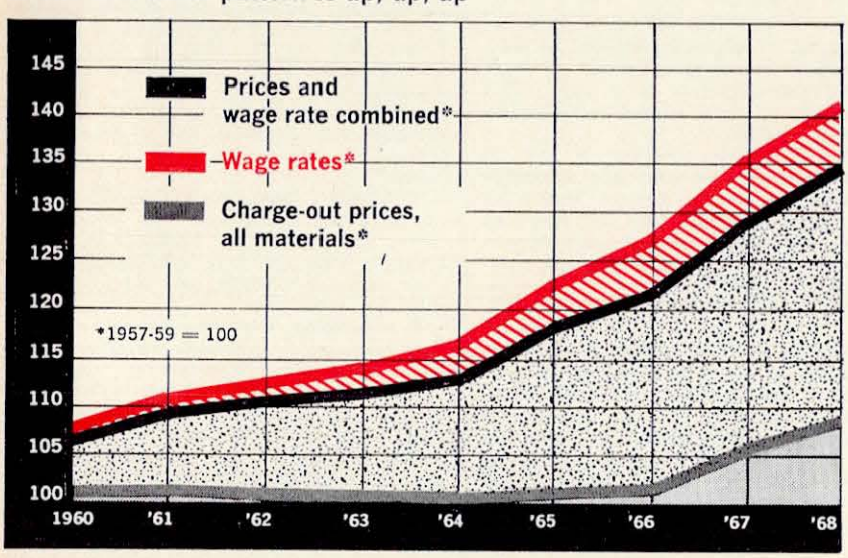
One observer warns that "in seeking a solution for the railway capital investment problem, it would be fatal to limit thinking solely to the financial problem—urgent as that matter is. Much more basic and total action is needed both within and without the industry than merely to devise some temporary financial expedients—useful as they might be. Nothing is more clear than that a complete revolution in rail pricing and service is required before anyone—the railroads, the investment bankers, the ICC or the public—will have a decisive and clear test as to how much capital investment really will be needed in railroading, and whether any significant net capital formation will be required."

That observation is not new—but it is still current. The "revolution in rail pricing and service" is indeed under way—but it's a long way from being complete.

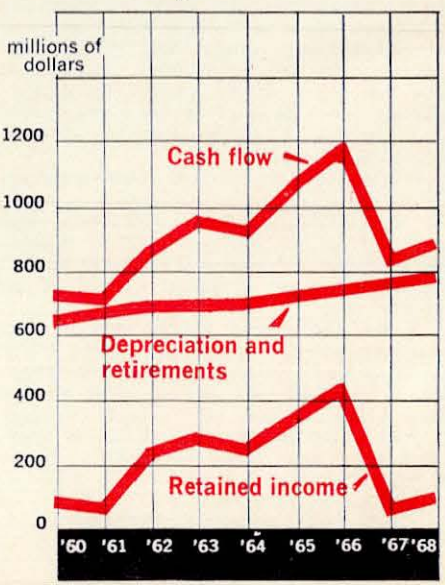
• **What's involved** in the "capital problem"? Capital has been defined as money used for productive purposes. It represents money retained for reinvestment in the property, or it is money obtained from new investors upon the credit of the company. Credit is another word for faith—investors' faith that the money they entrust to an enterprise will be used in ways that will produce an operating profit, out of which reasonable interest or dividends can be paid while reserves are maintained to restore the life worn out of capital assets. On that basis, how do railroads fare?

Historically, the industry has had little trouble in financing equipment. The "security" is the best, default is virtually unheard-of. Money generally is available to those willing or able to pay the going price for it. Fixed-property improvements, however, can't be financed the way equipment is. Outside money is not so easily obtained. In part because of this, fixed-property spending runs a poor second to equipment spending —and this imbalance can exact severe penal-

3. The cost index pattern is up, up, up



4. Cash flow: a climb to '66, then a drop



ties if no way is found to correct it.

• **Most observers might agree** that today's railroads, planning for tomorrow, need both to invest and to disinvest, to put more money into worthwhile use and to get rid of operations and facilities which no longer serve a useful purpose. Railroads will also need more accurate measurements of what money will do, in terms of revenue-generating service and profitability and return in investment. And if some present estimates of capital needs are anywhere near correct, railroads will have to build, or find, new capital sources.

• **Debate on this last point** can get hot —as it has in connection with railroad diversification through the holding-company or conglomerate route.

• **The stated aims** of this kind of expansion are simple. A company broadens its base. It reduces its dependency upon one source of income, and a cyclical source at that. It improves its access to capital markets. It may be in an improved tax position. In theory, the railroad part of the enterprise benefits from the increased stability of the over-all enterprise.

Skeptics aren't so sure that the aims are really that simple or direct. There is concern that diversification really will mean disinvestment, and that the railroad part of the conglomerate will suffer. There is concern that the railroad, a low-rate-of-return business, will have little money lavished on it when a greater return can be earned from investment in some other division of the company.

Neither the expansionists nor the skeptics can prove a case yet. The whole trend, as it affects the railroad industry, is too new. But on balance—and on the basis of early returns—it does not seem that railroads are being lost in the conglomerate shuffle. And in a way, the whole question becomes moot, if you accept one railroad chief executive's view of the situation: "If conglomerates spell survival, they certainly serve a purpose."

• **Surfacing now,** too, are other key questions—not only on the future sources of capital but also on its application to get maximum value from every dollar.

• **Much investment,** in recent years, has been what might be called pressure-investment—reaction to external demand. Discretionary investment has been more limited —partly because there hasn't been that much money left after pressure-investment needs were satisfied. The situation does have a certain brutal logic to it: A company that wants to continue serving a customer must pay heed to his demands. Increasingly, however, financial experts in management—and some operating people as well—are questioning the processes by which investment decisions are made. They're not convinced that, in all cases, the wisest moves have been made. And they're not at all sure that decision-makers have always had the best and the most accurate information to aid them in judging between alternatives.

• **It's in this area** that the computer may make one of its biggest contributions to railroading—in the kind of cost/benefit analysis and investment-result simulation which will be possible. Managers will be able to bombard the machine with "what if?" queries—and the answers received can then serve as a stable underpinning for dollar decisions.

• **Even without computer analysis,** however, it seems sure that railroads will be spending a greater proportion of available dollars—both in capital investment and in operating funds—on the railroad plant itself. New means of financing these improvements may be needed. In the meantime, changes in depreciation policies could spur this kind of activity. And, in fact, changes in depreciation policies may be mandatory, if government is at all interested in promoting railroad improvement as part of over-all transportation improvement.

Experience would indicate, however, that while railroads may *want* to spend more on the fixed-property, they will be under continuing—perhaps intensifying—pressures to spend more on equipment. Something, somewhere, may have to give. New financing concepts could come from this continuing dollar squeeze. Government, transportation users and the railroads themselves might all wind up working together.

• **Government** obviously is not the ogre it once was, in considerations of railroad financing. A decade ago, most roads scorned the idea of federal participation in solving freight-car supply problems. Now, railroads seek federal participation in solving the equipment problems of commuter and long-haul passenger operations. Some joint venture in the freight-car field could yet develop. At the same time, at least two proposals have been talked about which involve government in the problems of fixed-property improvement. One is a sale-and-lease-back proposition. The other suggests that some form of trust-fund approach might be used—and, of course, that kind of funding has worked for the Interstate highway system and is being proposed for airways and mass-transit development.

• **In the private sector,** several options might be considered, primarily in the equipment-financing area. Activity in leasing has grown significantly—and not just among so-called "poor" companies. Customer lease or ownership of equipment is on the increase. And there are railroad men—perhaps railroad customers as well—who are giving serious study to the question of whether a railroad should become strictly a transportation agency, furnishing right-of-way and power and crews and leaving equipment supply solely in the hands of the transportation buyer.

• **Underlying all problems** of finance, however, are doubts which keep nagging: Will investors have confidence in the future of railroads? Is nationalization a possibility, and would it solve anything? Is the nation, the government, really interested in the development of the kind of transportation systems which will best serve the nation's needs?

Investors, some say, show little fear. Railroad stock yields are not at all bad, and there has been a certain stability to prices. This may be comforting to the so-called "true investor" who is more interested in yield than in price appreciation. At the same time, some railroad financial officers worry that market speculators in the investment community "have become discouraged because price/earnings ratios haven't skyrocketed, and so they figure that railroads might as well be unloaded on the government."

• **Under the circumstances,** nationalization must be regarded as a distinct possibility. It's been pointed out that the factors which led to nationalization in other countries also exist here, to one extent or another. It might not matter that nationalization has not *solved* problems in other nations. What might matter is government's belated realization that railroads are vital—and that they must be preserved and improved. The tragic part of this is that government, if only it would, could move now to preserve and improve railroads—and, by so doing, virtually eliminate the possibility of having to step in at some too-late date to salvage what may be left.

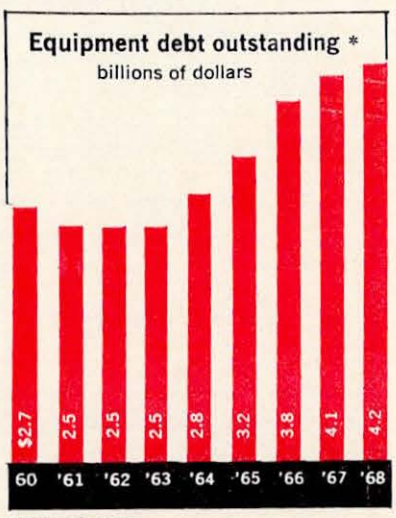
If railroads were still a monopoly or if railroads were guaranteed a certain rate of return (which is impossible in the absence of a monopoly situation), financing problems would be greatly reduced. If government were to permit a free-market operation in transportation, railroad financing problems might be greatly reduced (after the initial shock wore off).

• **None of these situations** is likely to come to pass. So the outlook for tomorrow is mixed. Railroads, first, will be putting far more effort into the building of *profitable* business. They will be using every known tool to develop revenue/cost analyses. They will be working on change in government policy toward transportation. They will be exploring new ways to get the money needed for the improvements that are needed. And they will be heeding the advice of one long-time observer to reconsider priorities: "If it should be true that railroads cannot attract large amounts of investment capital and cannot improve the plant to the extent they would like to, then in order to survive as a free enterprise they must do a better job with what they have. That means they have to use their non-capital assets more effectively."

• **A railroad man replies:** "Non-capital or capital—all assets have to be used more effectively. But we've got to find more of both kinds."

5. . . . and it has seldom matched capital spending

6. Equipment debt has had a steady increase



*End of year

NO. 8 TOMORROW'S RAILROADS

Gearing a Transportation Industry Together

It's an elusive dream—the dream of a national transportation "system." But some dreams eventually come true. This one will —because it must.

• **System transportation** has been called by many names. Some—such as "common ownership"—have become fighting words. Others—"intermodal" or "multimodal" transportation, for instance—retain a certain respectability. These words and the concepts they represent are the future, so far as transportation is concerned.

• **Who will lead** the movement toward system transportation? In all probability, government—government with the vision and the courage to do something about a transportation mess that can only get worse as transport demand builds up.

At long last, government may be ready to face up to the responsibility. It was a top federal official who had the daring to say this: "We will see the emergence of intermodal transportation companies . . . This development is necessary and inevitable and nothing to be afraid of."

• **Transportation people** have their own responsibilities. Unfortunately, many of them show less desire to accept them, and perhaps this is not surprising: Decades of intermodal squabbling are not easily forgotten, even in the face of national growth patterns which demand that changes be made in transport policy and practice.

• **The principal argument,** now as before, is between the railroad and motor carrier industries. It shows few signs of cooling off. Railroads want an easing of restrictions preventing broad expansion in transportation; truckers want no such thing.

• **The motor carrier** position might be summed up in this trucker's comment: "We don't buy [railroad] ideas of common ownership. We don't think either we or the entire nation could afford that remedy, if it were any remedy, which it isn't. We are double-sure that trucking, the airlines and the water carriers would never have developed as they have, if railroads had owned them all. The equipment and the services of these other modes in rail hands would have grown and improved—but only to the extent of becoming genuinely competitive with the larger rail investments that would be closer to railroad hearts. Truck operators figure that truck ingenuity and inventiveness and improvement would be dead, in railroad hands. So we would fight a wider railroad common ownership of truck lines. We would fight it all the way, and we would expect shippers to fight shoulder-to-shoulder with us."

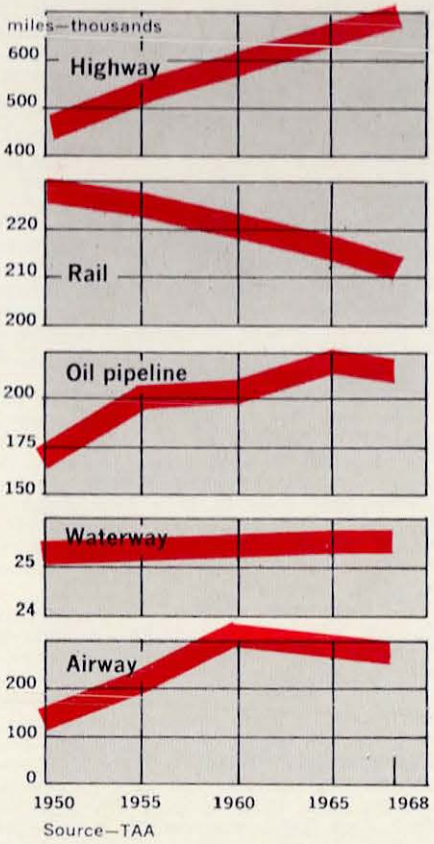
So far as this trucker's observation relates to the past, it's probably true. Past generations of railroad men *were* railroad men. Some of them passed up opportunities to expand into other forms of transportation when it was possible to do so. Most of them were concerned primarily with building a reputation as "a good railroad man." They operated in a totally different era.

• **Today's management approach** to railroading is far more businesslike. Today's successful railroad manager is a businessman first and a railroad man second. He knows what era he's working in. He chafes under restrictions that prevent him from offering a total transportation package.

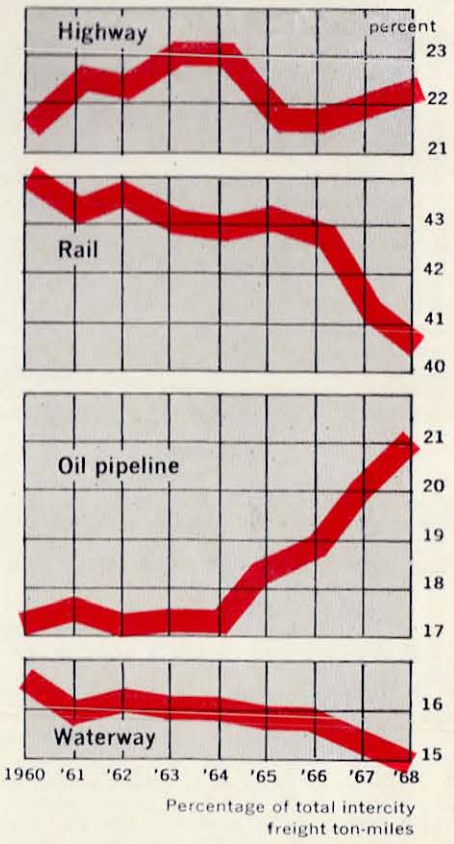
And it's ironic now that the trucking industry—which did so much for the betterment of commerce—is the biggest barrier standing in the way of much-needed transport improvement.

• **There are possibilities,** of course, in the voluntary cooperation or coordination of transport modes. Containerization—no longer just a catch-word—has helped in this kind of development, as has conventional piggyback. But even container operations have not achieved maximum efficiency, and other attempts at intermodal coordination have fallen farther short of goals—perhaps because of what one observer calls "a natural disinclination of one mode to share work with another."

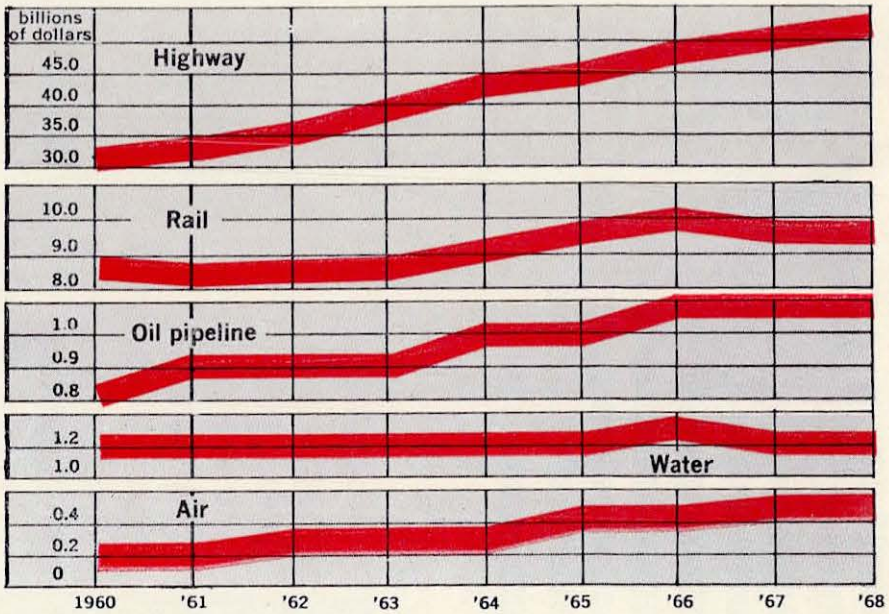
• **Somehow, this failure** must be turned into success. Government itself is working with forecasts that see a trillion-ton-mile year for railroads by 1975, a 50% increase in motor-carrier ton-miles and "huge in-



The primary transportation plant looks like this . . .



. . . and each mode has this share of the market



The customer pays—how much and to whom?

creases in business . . . for pipelines, inland water carriers and air-cargo operations." International trade, by government estimate, "will double in 10 years."

Again by government estimate, if national growth continues as predicted, "we will have to double our transport capacity in the next 20 years—double a capacity that took us about 150 years to put in place."

• **Containerization** could be the catalyst which brings transport modes together in some effective compound. It has popular appeal. The development of its technology is intermodal. Only in operations (only?) is improvement coming at a growth-retarding rate.

• **A man who has looked** at transportation both as a participant and as a regulator makes this point: "Intermodal transportation systems under one management, designed around the phenomenon of the container . . . are the key to domestic distribution efficiency of tomorrow. They must be allowed to form voluntarily, unshackled by legislation of a time gone by. It is all too apparent that successful intermodality will come into its own only when all transportation services can be offered by a single, efficient transportation company. Our present compartmentalized system of transport results from arbitrary statutory prohibitions, administrative interpretations and sheer, hide-bound tradition. It can only work against the orderly growth and development of domestic container traffic. I believe . . . that most of the problems of coordination and pricing of domestic intermodal transportation services would disappear if common ownership of transportation systems were authorized."

Perhaps what is needed—in this, as in so many things affecting transportation—is a showcase.

• **Intermodal transportation** is not something that can be simulated effectively on a computer or plotted on an economist's chart. It is something that has to be tested and proved in practice. Such tests should be made, and soon.

• **Would it be possible**—one observer wonders—for a test-tube experiment to be set up? Would it be possible to bring together a railroad, a motor carrier, an inland-waterway carrier, and an airline—each of them of significant importance—to show what multimodal operations could achieve?

Only government, under present conditions, could line up such a test. There would be all sorts of problems, not the least of which would be some kind of shareholder indemnification. In whatever area this transport conglomerate operated, there would be problems with individually competing modes of transportation. Undoubtedly, there would be labor problems.

• **The whole idea** might prove to be impracticable. But what better way would there be to test the theory of the wholeness of transportation? There would be a new transport entity, a new kind of transportation for the buyer to sample. There would be direct comparison between total transportation and fragmented transportation. There would be service and cost measurements which a buyer could make. There would be operational measurements which management could make. There would be a total picture for government to see, as it tries to assess the pro and con arguments on intermodal or multimodal transportation. There would be—hopefully—some determination on the part of all parties to do an honest job, an impartial research job.

• **So far as transportation** is concerned, what other choices are there? Transportation today doesn't meet the nation's needs as efficiently or as economically as it could. A blanket order from government, or blanket permission for intermodal operation, would still meet powerful opposition. So perhaps a test is needed. It would cost money. But this nation spent more than $160 billion for transportation last year, and the total is steadily climbing. It can well afford the dollars that a multimodal experiment would require.

The *big* need—the philosophical need—is for the development of more people, in transportation as well as in government, who think beyond today. Shippers could help in this development, if only they would.

• **Shippers**—buyers of freight transportation—are paying more for transportation than they have to, and the service they're getting is too often poor. Shippers should be insisting upon development of more rational policies toward transportation. Shippers should be taking a cold new look at their positions on competition in transportation. Shippers who have a minimum choice in other utilities—in electric power, gas, water, the choice is take it or leave it—can play one carrier against another, one mode against another, but still they don't get the kind of cost/service relationship they need. They could do better, and they ought to be thinking about multimodal transportation as one possible route to "doing better."

• **In short, there has to be** a better way to run the transportation industry—a better way in which a transportation *industry* can be constructed.

In the meantime—while government, customers and transport agencies are operating under present outmoded conditions—the problems of transportation will grow.

Chaos is in the offing.

• **Projections of** Gross National Product all point to transport demand like nothing this nation has ever known. Projections on population growth all point to an increasing urbanization. Inevitably, there will be a space problem—and a transportation problem.

The old rule says that nothing moves unless it has to. And if it has to move, then it moves no greater distance and at no greater cost than necessary. This is the challenge that faces transportation—not just railroads but all transportation—in tomorrow's world.

• **Transportation as it exists** today cannot meet that challenge. As one top government official puts it, "I take it for granted that no one mode of transportation will be able to provide efficiently all the mobility we require. Our citizens should be able to choose a mix of modes designed to get them, or their freight shipments, where they are going with a minimum of delay and irritation."

• **So the time has come** for the laying aside of past feuds, past wars, past sniping, past back-biting. The time has come for all transportation managers—rail, truck, barge, ship, pipe or plane—to think of themselves and their enterprises as parts of the whole, not as separate and individual entities.

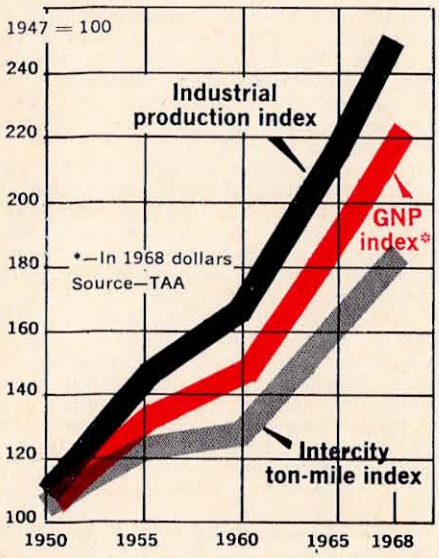
Contempt is something that no longer can be tolerated, between one kind of transportation and another. Infighting has to cease. Intermodal and intramodal competition must be redefined. It was a highway builder who said it: "All modes of transportation are complementary, or should be, rather than competitive."

• **Railroads and railroad men** have been off-target in the past in some of the arguments they have made, to Congress and the public. At the very least, they have been impractical in what they have asked. But this time, railroads and railroad men are right. Tomorrow—not merely tomorrow's railroads but tomorrow's transportation—demands that the nation, its government and its existing transportation companies look at the toal requirement.

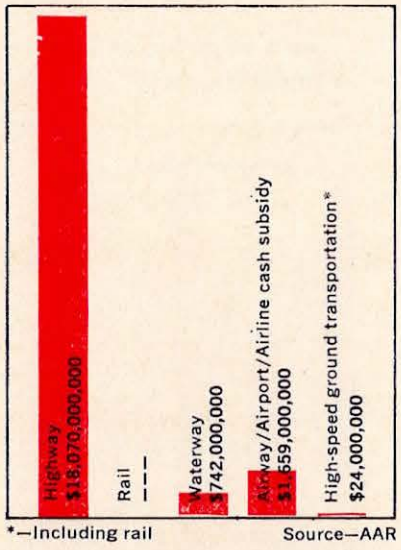
• **It's possible** that somebody in some other form of transportation will take the lead in setting up a true intermodal operation. After all, the real prohibition involves railroad control of other modes, and a vice-versa situation could be created. From time to time, there's talk of something like this. But it remains talk. Turning it into reality would be difficult and expensive.

• **Somehow and somewhere and sometime,** though, the deadlock in transportation will be broken. The walls between modes will be knocked down. It won't happen this year or next. It won't happen so long as railroad men are the only advocates of intermodal or multimodal transportation. But the day will come—when government becomes involved, when transportation buyers become involved, and when transportation's defenders of the status quo begin to realize that events are passing them by.

• **Someday, there will be** a true transportation company. It will be multimodal, and it will be efficient. Most important, it will be providing a needed service, and a saleable one. The elusive dream will be captured. And the goals of national development will be a lot easier to reach.

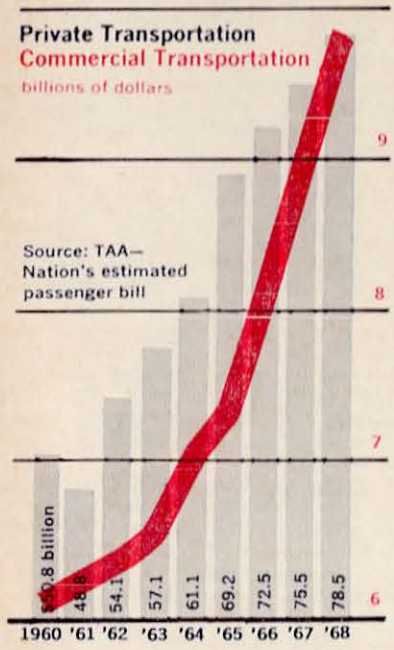


Production moves up, transport performance trails behind . . .

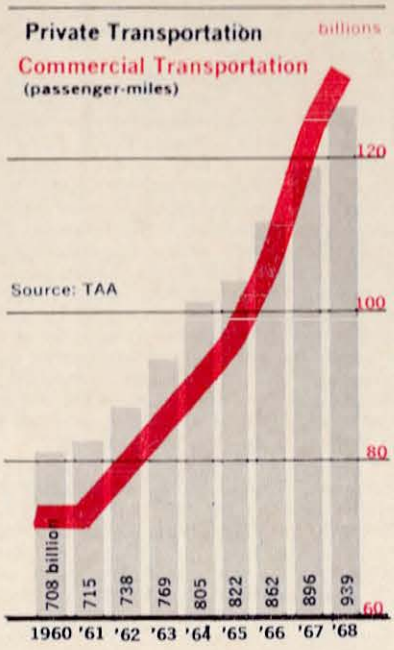


. . . and government's '69 spending obligations show this "balance"

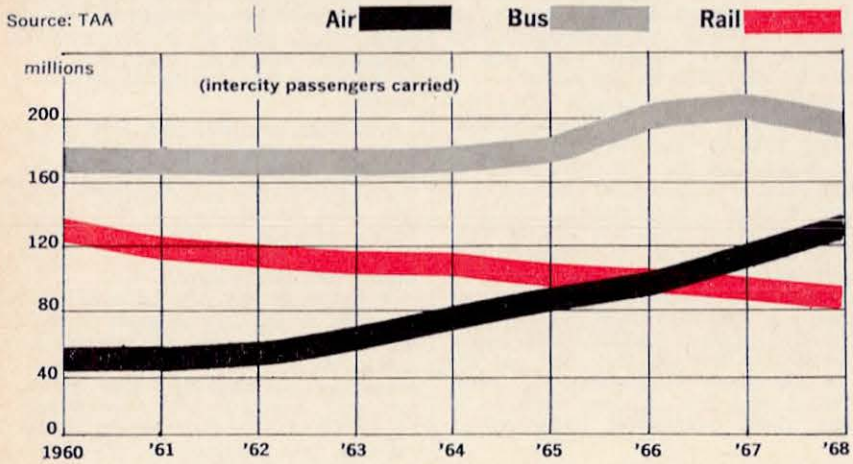
Costs of people-moving are climbing . . .



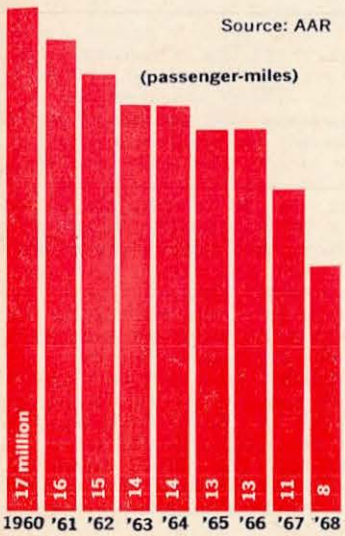
. . . and private carriage dominates the intercity market.



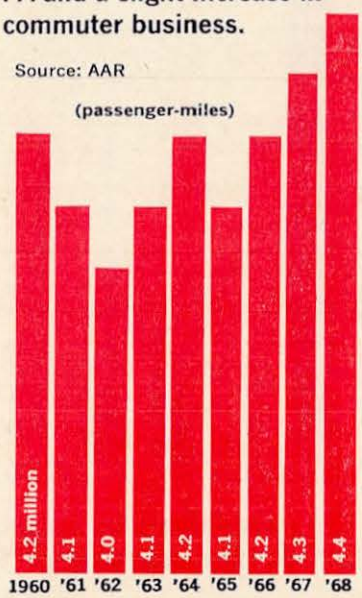
Among commercial carriers: Growth, stability, shrinkage.



For railroads, a steady drop in intercity service . . .



. . . and a slight increase in commuter business.



If you like emotion—real pathos, bathos, high drama and all that—you can turn-on with daytime television. Or, you can start a discussion of rail passenger service with practically anybody. Practically anybody, these days, is an expert—and with such emotional expertise.

• **Endless arguments** can be generated, when rail passenger service is the topic. But the right questions are seldom raised, while the wrong ones almost always are.

For instance, there is the chicken/egg argument: Have passengers fled the railroads voluntarily, or have railroads shooed them away? Governments start wars with much less emotion than passenger-train friends and foes display in debating this one. Yet, hard fact indicates that an answer is meaningless. It doesn't really matter.

• **What does matter** is what happens tomorrow. If you look only at today, you have to have a powerful faith, to think that railroads will have *any* place in the people-moving business. But when you do look to the future, you inevitably see population-mobility demands of a size that only a railroad—or something like it—can handle.

• **Tomorrow's railroad** could have three passenger markets. Two are obvious. One is chancy.

• **Urbanization**—more and more people clustering closer and closer together—produces two markets. One is urban/suburban. The other is interurban. Both markets are growing. Both require the kind of time/space efficiency inherent in railroading—or something like it. And that phrase "something like it" includes such technological developments as the tracked air-cushion vehicle, which (1) are not so far off as they might seem, and (2) could be readily adapted to a railroad environment. This is short-haul business—taking commuters between home and work, shuttling travelers back and forth in population corridors. But without this kind of service, tomorrow's United States will not function. And a railroad—or something like it—can provide this service best. So, it will be provided.

• **The third market** for a railroad in the people-moving area is the iffy one: It's the long-haul market which has fallen so flat since World War II. Today's railroads don't belong in this market. If entry/exit decisions were made on cold and rational bases, today's railroads would not be in this market. But tomorrow's railroads? That could be another story. Possibilities may exist—in subsidy, in a new generation's demand for transport quality, in use of standardized and pooled equipment, in vacation or educational charters, in a concept such as auto-train, or in other areas as yet unexplored to any extent. A mobile population that deserted the railroads could ask for another chance.

• **In all of these markets,** today's railroads (and rail-based transit systems) have rough-going. In the short-haul commute/corridor business, there are inequities. Nobody has determined the social costs involved. Nobody has determined how much support should be provided by the user, by the business and industry that benefit and by the local or regional or federal government. These determinations will be made—hopefully, soon. A trustfund approach to commute/corridor service will be taken—hopefully, soon. Yesterday, perhaps, there was time to take the deliberate approach—time to wait and see and wait and see and wait. There's not much time today, and there will be less tomorrow.

• **The long-haul business** is something else. The market, for commercial ground-transportation systems, is not so clearly defined. For intercity travel, the airlines have the businessman and the private automobile has the vacationer. But here, too,

NO. 9 TOMORROW'S RAILROADS

Moving People: What Are the Solutions?

there could be possibilities. Intercity travelers are going to rebel. They may well demand something more than either the airlines or the automobile can provide—in terms of cost, effective speed, safety, wear-and-tear on the individual user. Government may well take a stern look at environmental-damage factors—noise, air pollution, the community disruption which can be involved in locating new highways and new air terminals.

• **Until such time** as new sets of priorities are established, however, it's impossible to be optimistic about the railroad's future in any long-haul intercity passenger market.

Today, there are a few trains which qualify as "excellent," even by yesteryear's standards. There are a number on which service is only fair. There are some which would have to be upgraded in order to qualify as barely-adequate. In virtually every situation, equipment is a major problem: Even the excellent trains are operating with aging equipment, and the investment capital for fleet-replacement is just not there.

• **Critics of rail passenger** service have an ammunition supply that never seems to run out. Many of their shots miss the mark—but some do hit home, within the target area if not on the bullseye.

There is, for example, the familiar charge of odd bookkeeping in connection with reporting on passenger profit-and-loss. But here the system would seem to be more at fault than those who have to use it. When figures are linked to such phrases as "ICC formula" or "fully-allocated" or "out-of-pocket" or "avoidable cost" or "solely-related cost," the results can be baffling (if not suspicion-provoking).

• **Also ranking high** is the charge that railroads have been unimaginative, that they have not tried hard enough. This indictment can take two forms: (1) Railroads could make passenger service profitable, with the proper amount of effort, or (2) railroads failed to see a bad situation developing in time to do something about it.

• **The first part** of this particular criticism just won't die—despite mounting evidence, in the United States and especially in Canada, that passenger service in the traditional sense is a losing proposition. Railroads have tinkered with the fare structure—lower fares, higher fares, a wide variety of special fares. Railroads have adjusted schedules. In the years after World War II, many of them boldly re-equipped. In the face of rising labor costs, railroads have tried to win crew-consist and/or work-rules changes from the labor organizations. Some roads have increased advertising and promotion budgets. None of these efforts produced lasting results. In Canada during the 1960's the industry has seen perhaps the greatest single effort ever produced by a railroad to make passenger service a going thing. Even this magnificent effort has not succeeded.

• **So, the charge** that railroads have not tried does not hold up. And there is only a bit more validity to the theory that the industry reacted too slowly to a worsening situation.

• **In a way, passenger service** reached a turning point in 1958 with passage of a new Transportation Act. Armed with a new capability to prune away the worst of their losing services, railroads maintained a hope that a core of quality service could be continued. The record of the '60s indicates that this was, in large part, a vain hope. With the hindsight that the vantage point of today provides, perhaps it could be argued that the industry long ago should have applied for subsidy for those services regarded as essential. Perhaps it could be argued that railroads should have talked less bravely about passenger service as a "showcase" and as a public-relations tool.

• **Perhaps, ironically,** it could be argued that railroads tried *too* hard to make it on their own—and that they are now paying the price for over-exertion at the same time they're being accused of under-exertion.

• **But, the past** is prologue, as the saying goes. The question is: Prologue to what?

• **A top government official** in transportation looks ahead, and he sees this: "Dealing with prosperity is actually the greatest problem in this country today. Rising incomes permit our people to consume steadily more land, air and water. They pollute their surroundings and they clog the highways and airways. Yet the kinds and amounts of environmental activity will soon increase far beyond present levels. If the trend of the past 20 years continues, average family incomes will exceed $24,000 per year by the turn of the century. These affluent consumers will surely be making extraordinary demands upon the dwindling resources of a finite world. This nation is headed for an era of total consumption and total mobility, and I'm not sure we're ready for it. We had better start now to face its implications."

• **Total mobility:** The phrase alone is enough to strike terror in the hearts of those responsible for planning tomorrow's people-moving systems. Clearly, the answers that sufficed yesterday won't work tomorrow. The nation can be justly proud of its super-highways and its super-jetports—but they alone will never be able to provide "total mobility."

• **As rational men** examine solutions to tomorrow's problems of mobility, several things will happen: (1) The inefficient will necessarily give way to the efficient in the urban environment, and this will produce a far greater reliance on true *mass* transportation systems; (2) with increased urbanization and the growth of new urban corridors, planners will force the development of land-based corridor *mass* transportation systems complementary to the individual urban systems; and (3) with the growth of intermodal concepts, there will be new markets opening up for land-based, long-haul passenger-carrying systems.

• **There are alternatives** to all of these developments. But they seem less-than-reasonable.

• **Cities could continue** to spread concrete and encourage the use of the private automobile. In so doing, they would be sowing the seeds of their own destruction. The costs would be enormous. The environmental factors created would be deadly.

• **For corridor travel,** some say the airplane will be the answer—the kind of airplane that requires little ground space for take-off and landing, the kind of craft that can make low-altitude hops between population and business centers. But this service hardly shapes up as mass transportation, of the magnitude that will be required.

• **For long-haul service,** it has been assumed that aircraft and private automobiles will have a lock on the business. Certainly, the record of today's rail passenger service does nothing to challenge that assumption. But there's reason to wonder: Just how much can air and auto operations reasonably be expanded? Government has already had to impose flight-rationing at the busiest air terminals. Yet government is forecasting a 300% increase in air-travel demand by the end of the 1970s. What kind of congestion, in the air and on the ground, will come along with this travel increase?

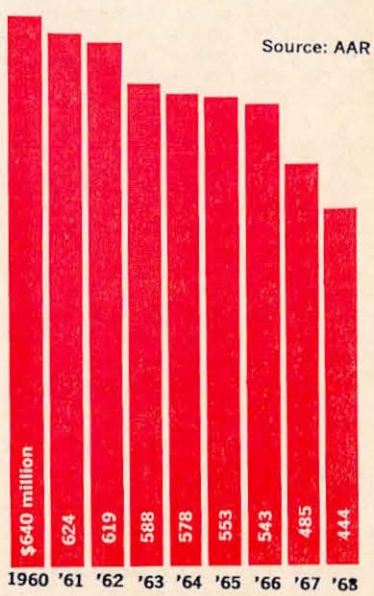
• **Congestion** is also the name of the game on the highways. There are twice as many cars on the roads today as there were 20 years ago. By the end of the century, the automobile-population will be double what it is now. How can this traffic-growth be handled—or *can* it be handled? Will an increasingly-affluent and leisure-oriented society put up with the congestion that seems inevitable? Or will society demand the development of systems which will make more satisfactory and more satisfying use of the vital resources, time and space?

The end of World War II marked the beginning of one era. Technology and the money to develop and use it were concentrated on skyways and highways. There was little money available and, therefore, little new technology produced for land-based people-moving systems.

• **Now, hopefully, the nation** is coming into a new era—or at least a new phase of the old one. More money is trickling into research on land-based transportation. The trickle may soon become a respectable stream. Most important, R&D efforts are being aimed not just at creating all-new forms of transportation but also at making fuller use of available transport resources. Researchers are looking not just at far-out ideas such as the tube-train but also at closer-in ideas such as the so-called co-axial train which may offer ways to improve transport capability at less-than-awesome cost.

• **Today's conventional** passenger train is probably on its way to oblivion, and it will be mourned. But once nostalgia and ideas of the past can be laid aside, rail-based systems must be considered for the future. They have a role—and it can be, perhaps must be, a major one.

Passenger revenues: the trend is down and down and down.



NO. 10 TOMORROW'S RAILROADS

Railroads and their People

The day is fast approaching when the railroad industry will have nothing left. If the trends of the 1960s are allowed to continue, there will come a day when railroads add up the results of a year's operation—and get a large, round zero. By some projections, that day is a decade or two away. By others, it could come much sooner—five years, perhaps six.

• **The arithmetic is simple.** The gap between income and outgo is closing fast. Under present circumstances, costs are increasing at a rate which revenues cannot possibly match. And these trends of the '60s, if not reversed, could spell disaster, for the people who own and operate railroads, for the people who depend on railroads for employment, for a nation which will continue to demand quality rail service at a reasonable cost.

• **Disaster of this magnitude** doesn't have to happen. But it can happen, and it will, unless rail management and the organizations representing rail employees start working together, pulling together, thinking together.

The goals have to be two-fold. First, railroads must have the operational flexibility they need to gain entry into new and profitable transportation markets. Second, employees and their organizations must be served in the pursuit of their own legitimate needs and desires. The two goals are not necessarily incompatible. It only seems that way.

• **There is no monopoly on sin,** in any consideration of railroad management/labor difficulties. Negotiators on both sides are fond of saying that management and the unions agree more than they disagree, and that's true. It's also a rather meaningless argument. The public knows only that railroads and their unions somehow manage to have a crisis every couple of years. And both management and union people know that in most of the agreements *and* disagreements, the vital issues are not really being attacked.

• **The essence of dispute** in management/union affairs is not always money, per se. In a wage case, both sides generally know what the pot contains. There is a certain amount of haggling. Emergency boards may be summoned to hear formal debate. But with certain exceptions—the shopcrafts providing two, in this decade—wage disputes are not the stuff that crisis is made of.

• **Work rules** are another matter. On the rock called "work rules," management and the unions can do one of two things. They can storm to the top together and plant the flag. Or, they can stand at the bottom and bicker, while the fire pours down upon them.

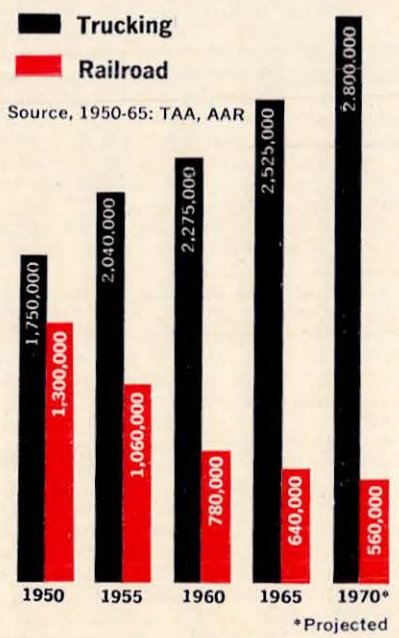
• **Management regards** certain rules—and rightly so—as outmoded, archaic, stifling to progress. The employee—with his own justification—has another view. As one respected observer points out, "Work rules and the seniority roster are the rocks on which the employee's economic and psychological moorings rest. Only as they remain fixed can he calculate his life chances. Question any of them, and his life is threatened to its foundations."

• **This apparent conflict-of-interest** gets added emphasis from the way in which management/labor relations are patterned. On the union side, there is the fact that negotiators are political figures. They are subject to election and re-election. They must get things done for their constitutents, even as a local alderman must get things done for his. By the very nature of their jobs, they are concerned with the here-and-now—not the long-range well-being of either company or employee. Especially, they are not concerned with long-range views if any immediate sacrifice is involved. Management, too often, also seems to be here-and-now in its labor-relations orientation. Junior members of the team may be judged more on their won-and-lost records than on their fairness in handling a case. Requests and complaints from the union side may be overlooked or ignored, even though (1) settling the issue would be relatively simple and cheap, and (2) settlement would earn a certain respect from the union representative at the same time it enabled him to earn respect from his people.

• **If the industry** and its employees are to prosper-long-range—the rules that most need changing are those affecting the operating crafts. Without change, the industry and its employees are surely headed for the rocks. But what kind of change might work? What kind of change might be acceptable to both sides?

• **Consider first** that both railroads and the labor organizations are losing ground. Railroads are declining, in share-of-market measurements, in profitability. The unions are declining in membership, in number of jobs represented. From a financial standpoint, a condition of double-jeopardy is being created.

• **Railroad customers** demand service. But railroad cost factors, on the operating side, can virtually force management to put service second to efficiency: Service notwithstanding, can a railroad afford to run 10 20-car trains, each with a four- or five-man crew? Or does it lean toward a single 200-car train, with a single four- or five-man crew? Economics dictates a decision in favor of "efficiency." But the results are hardly beneficial to anybody. Service suffers, railroads lose business, employees lose jobs, unions lose members.



• **What might happen,** if trade-offs were possible? Let's say an agreement with the operating crafts could be reached. Let's say that scheduled trains could operate with two-man crews, local freights with three men. Operations would ignore seniority-district boundaries. Let's say that employees would work an eight-hour day, with time-and-a-half for overtime. Let's say that management could have the right to restructure work, that traditional work-jurisdiction lines could be erased, and that technological improvement could be fully utilized.

• **Under these conditions,** the railroad could operate twice as many trains at virtually the same operating costs. It would save on per diem, and it would be giving a better customer service. It would make better use of manpower, and it could simplify administrative functions.

• **What could be given** to the employee in return? By one management estimate, railroads could offer higher rates of pay and even a guaranteed annual wage, a guarantee against layoffs and a share of the benefits—translated, perhaps, into earlier retirement and/or increased retirement benefits.

West Coast longshoremen and employers have worked out agreements not unlike this, so the concept is not totally untried or unproved.

• **Consider another possibility.** Consider the opportunities which might be available if management and the unions could maintain a conversation free of the built-in-handicaps of the ordinary collective-bargaining process. This kind of conversation could have value in the area of clerical jobs or shop jobs. It could have perhaps its greatest over-all value in the area of operating jobs.

• **There is no reason** why the dialog cannot begin. Managements have a brief-case full of proposals—marketing plans, operating plans. Top union leaders profess to be interested. Surveys seem to indicate that rail employees are interested, as well they should be.

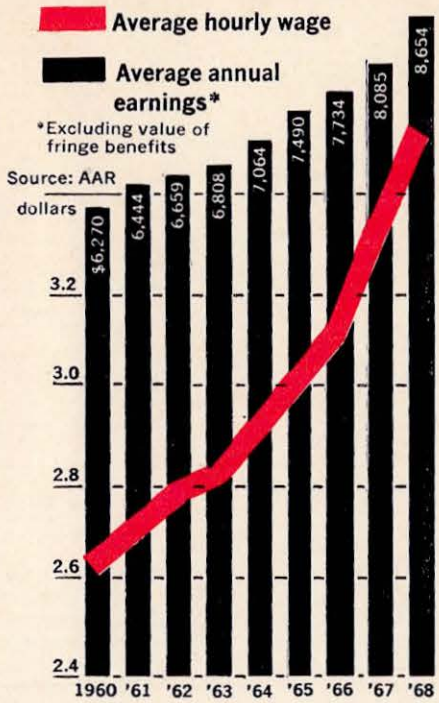
• **But the bargaining table** is not the place for these conversations. The atmosphere is wrong. Both sides, as one observer puts it, "are preoccupied with things that can be counted—minutes, days, dollars, cents, pensions, holidays, vacations and measurable specifics like that. People around a bargaining table aren't too comfortable when they're talking about ideas." Both sides, it might be added, are also preoccupied with the traditional nature of bargaining—as an adversary proceeding.

• **Employees and their organizations** must become partners with management, not competitors, in the search for gain. This has to involve, by one description, "a joint effort to restructure railroad service, to discard obsolete theories and concepts, and to develop new ways of serving customers which the customers will buy." The goals, which both sides can understand, are more business, more profit-making revenues, more and better jobs. The means of reaching those goals almost has to be cooperative—through a permanent committee or commission of top management and union people who are free to consider proposals, arrive at decisions and then implement those decisions on permanent or trial bases.

• **Other "solutions"** are possible. But, on close examination, most of them turn out to be attacks at the effects of rail management/union strife. Few go to the causes.

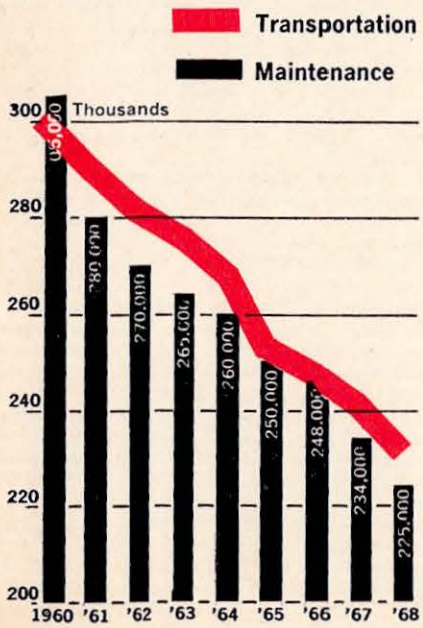
Rail employment drops—but payroll follows a different curve.

And wage/earnings measurements move steadily up.

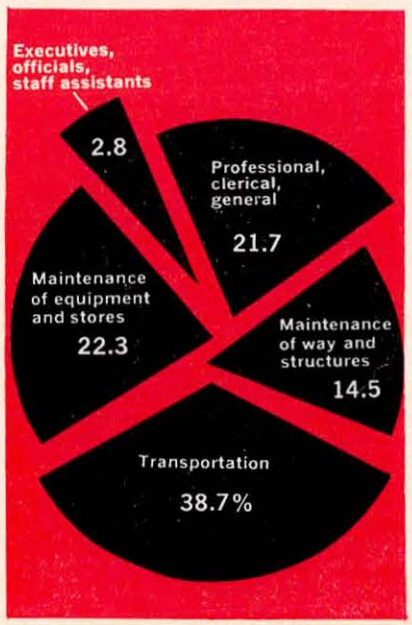


Price inflation is one thing, wage inflation quite another.

In the '60s, two classes of rail employment decline at similar rates.



And today, this is the make-up of the total payroll.



• **There are proposals** that a system of labor courts be set up. There are proposals that labor disputes in transportation be steered into some form of mediation-to-finality—a euphemism for compulsory arbitration. There are "arsenal-of-weapons" proposals in which the President would have his choice of moves, ranging from imposed arbitration to seizure to the taking of no action at all. And, of course, there is the proposal that the nation—by one means or another—meet each problem as it arises and apply whatever ad hoc solution seems advisable.

• **Some merit exists** in each of these suggestions. No matter what else happens, the nation might be well-served if there were a guarantee of transportation-service continuity. But no-strike/no-lockout guarantees do not go to the core of the problem. They are a negative solution, not a positive one.

• **Merger is also looked upon** as a solution of sorts—merger of railroads to produce fewer and stronger companies, merger of unions to produce fewer and less-competitive organizations. This too would help. Theoretically, at least, railroads would attain a better corporate balance. They would gain in offensive and defensive strength. Theoretically, at least, labor would have greater stability. Labor organizations would have less need to out-demand and out-fight and out-gain each other.

• **But the goal** should not be merely to keep rail management and rail labor from fighting. The goal should be the creation of conditions under which rail management and rail labor can work together on common interests while they still have freedom to argue about the things that employers and employees always argue about.

• **Ironically,** these could be exciting times —not depressing ones—for railroads and their people. The potential for strength is there—the kind of market strength that would help to create the "more and better jobs" which management and union leaders are fond of talking about.

• **Perhaps the biggest** need is for firm leadership on both sides. Among the organizations, three unions—all headed by men who view themselves as progressive—now represent roughly 80% of railroad employees. These unions, these men, could make up their minds to act as leaders—even to the point of seizing the initiative from the fragmented "organization" now made up of all of rail labor's chieftains. Among managements, there is no such concentration of power as such. But there is a growing number of chief executives with the desire to knock down the barriers and, with labor's help, to get companies, employees and unions all aiming at the same target: Creation of a better-built industry.

• **One major problem** is the simple fact that management and labor interface at so many points. Agreement, on anything, does not come easily when it involves negotiation, implementation and interpretation through complex, multi-layered organizational structures. Yet this is the situation that has grown up, over the 100-plus years of railroad management/union relations.

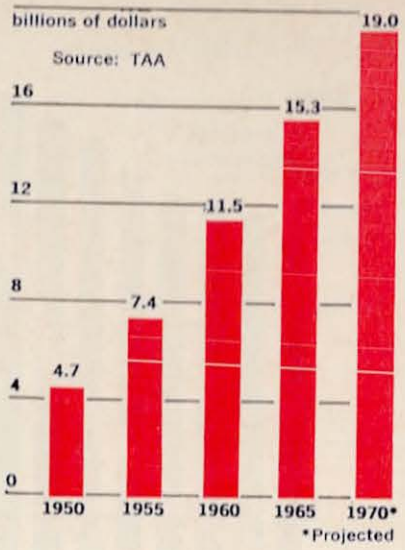
• **This problem** won't be solved soon, and, in fact, many of the problems afflicting railroads and their employees will take time to clear up. The important thing is that a start be made.

• **Both the railroads and the unions,** at this point, need a success—a victory, an evidence that cooperation can work to mutual benefit. For both short- and long-range gain, no "start" offers greater promise than that contained in a joint effort aimed at service innovation. Neither management nor labor can do the job alone. But together? Together, they can't fail.

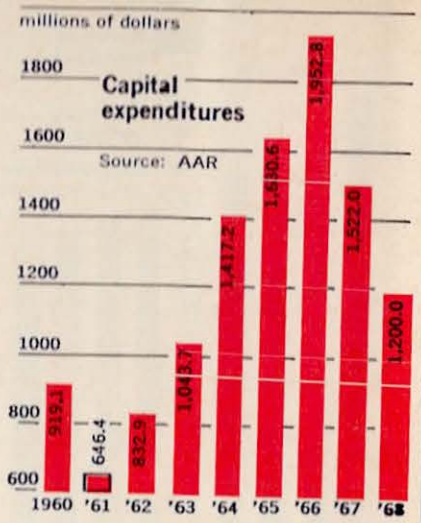
NO. 11 TOMORROW'S RAILROADS

Railroads and the Government

Government's spending for non-railroad transport facilities keeps going up . . .



. . . while railroads make-do, with their own and borrowed money.



Government's relationship to the railroad industry has changed dramatically. It is still changing. Perhaps never again will it remain static in the face of need for change—and this is all to the good. Unfortunately, however, much remains to be done if new paper relationships are to be turned into effective working relationships.

• **Both railroad people** and government people would be free to admit that they really don't know that much about working together. They can't be blamed for their ignorance. They have had little opportunity to practice cooperative creativity.

• **Government has been cast** too often in the role of the oppressor—a foe to be feared, sometimes to be scorned, almost always to be regarded as a meddler. Railroads have been cast too often in the role of antiquity's conservationists—as an industry dominated by the past and loving it.

• **For tomorrow,** however, a railroad/government partnership has to grow. There must be a mutual recognition that railroads in cooperation with government can do a far better job for the nation than railroads can do while standing proudly, if somewhat tattered, as the quote-unquote last bastion of free enterprise. This does not mean nationalization, or even an expansion of government's present control functions. It does mean development of ways in which (1) transportation can be accepted as the cement that binds society together, (2) railroads can be accepted as the keystone of a national transportation system, and (3) transportation, including railroads, can accept government as a partner with something valuable to contribute.

• **But government and railroads** need help in forming this partnership. Government and *all* transportation need help. Govment's past concern with railroads has been as regulator or referee. Government's past concern with transportation has been no over-all concern at all. Rather, it has been a fragmented, piecemeal kind of thing, creative only in the sense that it has created imbalances damaging to transportation and to the nation.

• **A master politician** once observed that "Law-making is a wonderful and mysterious process. However, in Washington it's really quite simple. When the people want a law, the Congress gives it to them." That is over-simplification, of course. But perhaps it provides a starting point, in trying to figure where government and transportation ought to be going—and how they might best get there together.

• **Congress is well aware** that there is a railroad problem, even a transportation problem. But for the most part, Congress has been forced to deal with symptoms—with effects and not with causes. Congress needs help, and it is not enough merely to present each new Congress with a "legislative program" and then to lobby for its passage. Congress needs back-up thinking—from advisors in the Executive branch, for example, and from the public and its so-called opinion leaders.

• **The Department of Transportation,** and specifically the Federal Railroad Administration, can fill a part of this need. But still, railroads (and all transportation) must get their message across in the 50 states, if there is to be the kind of constituent-feedback which produces action on Capitol Hill.

• **Top advisors** in government today are trying to promote change. A key official in DOT notes "ample evidence that improvements can and should be made in the regulations existing in the transportation industry. The Administration has a firm commitment to increasing beneficial competition and, where appropriate, relaxing regulation." Another top policy-maker in DOT talks of "the beneficial long-run effects of free and open competition." He sees "a gradual move toward freer competition, giving the carriers and shippers ample time to adjust to the winds of change." At the same time, he warns that "if we pursue our present course of rigid controls over the railroads and slack or no controls over much of the highway and water systems, we are flirting with early nationalization of much of our railroad system."

• **If this kind of advice** to Congress can be buttressed with public agreement, then progress can be made toward developing a balanced transportation industry that can grow with the nation and serve it well. But the job of convincing the public remains to be done. And unfortunately, what the public sees is too often the negative side.

• **Even in the area** of industry/government relations, the public is getting mostly the bad news. From word and picture, the public knows that government is investigating railroad safety and railroad passenger service and railroad equipment supply. Congress and the Administration may recognize a deeper meaning in these investigations. Congress and the Administration may be aware that these problem areas are, in a DOT official's words, "only symptoms of an ailing industry that needs help now and should be made more economically healthy." But the public, it would appear, does not yet share this awareness.

• **Some question** might also be raised as to the industry's total awareness—not its awareness of the problems, certainly, but its awareness of the possible paths to solution. It was in 1969—not 1960 or even 1965—that one of the industry's most-respected leaders felt it necessary to point out that "we must regard [government] as a partner, for many of the problems of the railroad industry are of such proportion that they cannot be solved except through a cooperative approach between government and industry." It was the same man who tacked on the observation that the combined forces of government and industry "will be ineffectual unless we have public understanding and public approval of our objectives. We will have little hope of stimulating Congressional action on our behalf unless we have the force of public opinion behind us."

• **But what about objectives?** What about priorities? What is gaining in importance? What, if anything, has become less important with the passage of time or with changing conditions?

• **Tendencies in the past** have been to go each time for a package, and the strategy hasn't worked. Perhaps the theory has been that Congress will eventually come through, if it is told something often enough. Perhaps railroads have been operating on the premise that many things need to be done and there is no point in ignoring any of them. In an absolute sense, railroads have probably been right. But in the context of practical politics, the strategy just hasn't worked. Not since 1958 has Congress been sufficiently aroused to a point where it would deliver a legislative "program." And even in '58, the lawmakers stopped far short of delivering a total package.

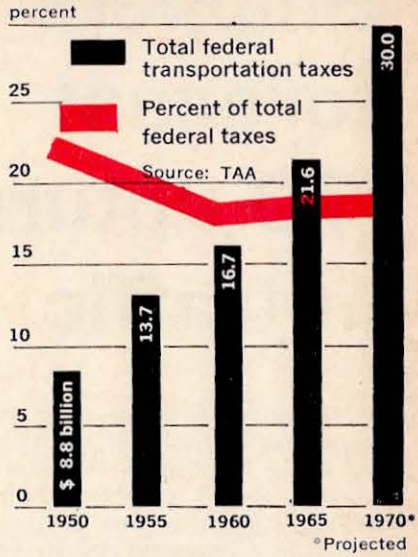
• **Without much doubt,** every railroad management has its own legislative priority list. The multi-item packages of the past reflect this. Today, however, there are certain evidences of greater unanimity in assigning priorities. There is, perhaps, a unity of purpose that has not always existed.

• **There is still need** for transport legislation on many fronts. Legislative attention should be directed into the whole area of transport pricing, into the use of tax incentives to promote transport improvement, into the use of federal support to maintain services defined as essential but unsupportable through the normal workings of the marketplace. Still, there is a growing feeling that Congress—if it is thinking along progressive lines—should be giving top priority to development of the multi-modal concept in transportation. This could well be the tough-

Reflecting tough times, U.S. income tax accruals by railroads are dropping . . .

. . . but *total* U.S. taxes paid by railroads chart a different course.

And this is the total U.S. tax derived from transportation.



est issue to confront Congress. But tough or not, it should be tackled. Tomorrow's demands for mobility—of both people and things—will be too great to be met by fragmented and fractured transportation, no matter how efficient any individual mode might become.

• **Dealing with government,** however, is more than just dealing with DOT and Congress. More than four dozen regulatory commissions, state and federal, get involved. Fifty state legislatures must be considered (even, in the total-transport sense, those of Hawaii and Alaska). Governors, mayors, city and town councils and the ever-present tax assessor can exercise various forms of influence over what goes on in transportation. The existence of these forces complicates matters. It also underscores the importance of developing public support for railroad (and transport) goals.

• **In any ranking** of problems-with-government, the immediate regulatory problem almost has to come first. It is day-to-day, month-to-month, year-to-year. It touches, often with a heavy hand, two key elements in any buyer/seller relationship in transportation: Pricing and (in ways less direct) service.

• **You could fill a book** with suggestions that have been made for improvement of the regulatory process. The extremes range from a total abolition of regulation to a mild plea for the regulators to "do better" within all the present frameworks of their operation. Some would consolidate all regulatory agencies at the federal level. Some would transfer the judicial aspects of regulation to an administrative court. Some would abolish state regulation, on grounds that railroads are part of a national transportation system and that "one national regulator ought to be able to protect the public interest, without additional regulation by the states."

• **All such suggestions** may be naive—if you believe that government's movement can only be toward greater controls and the building of greater bureaucracies. At the same time, a warning has to be sounded—again and again: Unless transportation is looked at in new lights, government may well end up by seriously damaging the public interest it presumably is in business to protect.

• **But how do you get** this message across? How do you convince government of the dangers of playing minor-league politics with major-league problems? How do you persuade those in government that tomorrow's railroad—tomorrow's transportation—can only be as good as government permits it to be?

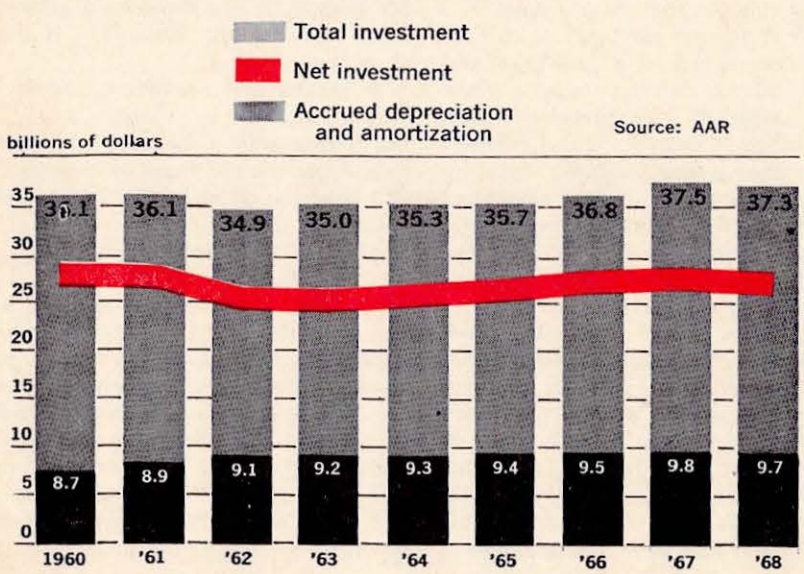
• **If you're a railroad man,** you go before the lawmakers and the regulators under a handicap—under several handicaps. First, absurd as it may seem, railroads still have the excesses of 1870 and 1880 to live down. The robber-baron image is an ancient but formidable foe. Second, railroads have comparatively little political power of their own. You can kick a railroad. Its power to deliver an effective return kick is limited. Third, railroads lack the broad lobby support that other transport modes seem to have. The railway supply industry is showing a steadily increasing support-capability, and its help has been invaluable. But the "supply" industries linked with other forms of transportation—the cement and petroleum-products people, the aircraft/aerospace complex—are equally dedicated to their cause, and their political strength is something to behold. Fourth, railroads don't get meaningful backing from the organizations representing railroad employees. Labor devotes its efforts to pushing legislation labor wants—and no amount of talk has yet been able to persuade labor's leaders that they ought to be working just as hard for legislation in the industry's interest.

• **And as if all this** were not enough, railroads lack a positive identification with the great American public. They cannot claim (1) the glamor attraction of the airlines; (2) the pork-barrel, spread-the-wealth advantage of the waterways operator; or (3) the every-man-a-motorist, every-motorist-a-voter song which the highway builders and highway freight-carriers can sing.

• **Railroads,** in short, have a long way to go before they can sit as equal partners in transportation in the halls of government. Perhaps they can make it on their own, at least part of the way—through redoubled attention to service, and to the public-interest aspects of railroading and transportation. But they should also be able to count on meaningful new support from several sources. One is rail labor—when labor realizes the full extent of the employee's stake in tomorrow's railroads. Another is the Executive branch of government—when the railroad/DOT relationship matures. A third is the transportation buyer—when he comes to a broader realization that his long-run interests coincide with those of the industry more often than not.

• **In the end,** it comes down to this: Railroads and government have been entangled for more than a century. But the relationship has been less than a stimulating one. That has to change. And the sooner all concerned start working *for* this change, the sooner tomorrow's railroads will live up to their promise.

What *is* the railroad industry, in dollar terms?



Shippers forecast '70 upturn in traffic

December Traffic Poll

1. How do you expect your company's over-all business in 1970 to compare with 1969?

Better	73
Same	17
Poorer	2

2. How do you think your total transportation needs in 1970 will compare with those of 1969?

Larger	74
Same	17
Smaller	1

3. In relation to your probable transportation needs in 1970, how do you expect your total use of rail service to compare with 1969?

Relatively larger	40
Same	39
Relatively smaller	13

The nation's freight package will be bigger than ever in 1970, and railroads will haul a hefty chunk of it. But they are going to have to improve both service and equipment—and be prepared to put up a persuasive defense of any further rate increases—if they hope to increase their share of the market.

Those conclusions are drawn from Railway Age's annual end-of-the-year poll of leading traffic executives.

A record number of shippers—92—participated in this year's poll. Seventy-four of them expect total shipments to rise in 1970. Forty expect to give a relatively larger share of their business to railroads than they did in 1969. Thirty-five expect no change in the share of their business going to railroads, and 13 say railroads will get a smaller share.

This is not quite as good a picture for railroads as a similar poll produced one year ago. In that survey, 48 out of 69 responding shippers said they planned to give railroads a larger share of their business, 20 saw no change, and only six anticipated a smaller share for rail carriers.

● **Rates raise some questions.** The recent 6% emergency rate increase granted railroads by the ICC was clearly on the minds of many shippers responding to the December Traffic Poll.

J. D. Mitchell, traffic manager of Coca-Cola USA, Atlanta, said his company would use more rail service in 1970 than in 1969, but he added: "Recent rate increases will reduce the total amount of traffic handled by rail originally projected"

Arnold J. Larson, general traffic manager, Masonite Corp., Chicago, said "the recent 6% increase in rates will undoubtedly favor trucking as the rails price themselves out of this market."

Said W. L. Reid, director of traffic, CF&I Steel Corp., Denver: "It has become obvious that greater tonnages of our products will be moved by transportation modes other than rail, due to the steep upward spiral on the cost of rail transportation."

H. H. Kohn, traffic manager, Linwood Stone Products, Davenport, Iowa, expects increased shipments in 1970 of both hydrate and pulverized lime, and he hopes to give a larger portion of the new business to rails—unless further freight rate increases are forthcoming.

R. A. Propf, director of transportation and distribution for George A. Hormel & Co., Austin, Minn., warned that "substantial increased costs of rail transportation (Ex Parte 262), plus adjustments on important specific commodities we ship, undoubtedly will result in further diversion of traffic to truck service, as it's certainly not possible to justify paying a premium for the poor quality rail service we've experienced during the past several years."

● **More private carriage?** A number of shippers spoke of a growing trend toward private carriage, among them A. E. Leitherer, vice president-traffic, Allied Mills, Chicago. Said Leitherer: "In our distribution patterns, which involve dealerships, we are still concerned with reasonably consistent service needs along with reasonable effective inventory controls. Many of our customers are so located in smaller size communities so as to suffer greatly from the exceedingly poor service accorded such points by rail service. This naturally forces a transition to private carriage, as much of our produce moves in bulk and is of such a nature as to require (1) special equipment, (2) unusual delivery requirements and (3) is not readily compatible in movement with other commodities in regulated carriage. We have had a changeover to private carriage and it appears that this trend will continue and possibly even escalate."

And J. A. Rowen, traffic manager, Foremost Foods Co., San Francisco, had this to say on the subject of private carriage: "We anticipate our total transportation requirement will increase substantially in 1970. My concern is our ability to direct a major share of this increase to rail due to the uncertainty of equipment availability and their lack of recognition of our major marketing problems. Our problem is one of product movement on a regular basis. Without assurance of equipment availability from rails our any alternative is truck or private carriage."

● **Service and equipment.** Dudley J. Russell, director of transportation for the Minneapolis Grain Exchange, predicted that the rail share of grain traffic will continue to shrink in 1970: "Minneapolis is the world's largest cash grain market, and not so many years ago it was an all-rail market. Today it is about a 40% truck-barge market, and the proportion is still growing. Comparative costs account for only a part of the shift. Almost equally important are service factors. The great majority of our Northwest grain producers, merchandisers and processors prefer rail, but they are being encouraged to use other modes (sometimes at higher costs) by the almost continual car short-

ages, the deplorable condition of equipment furnished, completely unpredictable delivery times which makes intelligent procurement planning impossible, arbitrary and impractical policies in the handling of damage claims and demurrage and unbelievably poor railroad public relations with respect to the handling of recent rate adjustment proposals."

Another shipper who will give railroads a smaller share of his company's business in 1970 is Robert L. Travis, general traffic manager of the S. D. Warren Co. Division, of Scott Paper Co., Westbrook, Maine. "We need strong railroads and I hope for improved rail service in 1970," said Travis, but he added: "Service dictates more and more of our finished product must move by truck over ever increasing distances. We need more railroad equipment to sell more paper in long-haul markets."

Robert J. Tyler, corporate traffic coordinator, Chemetron Corp., Louisville, Ky., said he expected his company's use of railroads to remain at this year's level, but he added, "If quality of rail service were improved the use of rail service would increase." Paul W. Gosling, regional traffic manager, F. W. Woolworth Co., Minneapolis, agreed that whether railroads can increase their share of the business "depends upon improvement in rail service."

- **Damage-claim-rules.** New freight claim rules on concealed damage came in for their share of criticism. J. W. Syme, traffic manager for Sears Roebuck, Los Angeles, said these new rules "will cause a reassessment of truck vs rail on appliance shipments. Our studies show that concealed damage on these lines are double in rail transport as compared to truck transport." Nonetheless, Syme expects rails to get a relatively larger share of his business.

A similar complaint came from P. T. Catalano, traffic and distribution manager, Steelcase, Inc., Grand Rapids, Mich.: "Although we anticipate a substantial increase in our business in 1970, we estimate our rail transportation needs will be about the same as 1969. The new AAR concealed damage claim policy is a direct cause of this downtrend in rail service needs. The specialized 'uncrated' motor carrier continues to enjoy the greatest percentage growth in our company of all transportation lines. We also anticipate our private trucking operations to grow proportionately larger again due to the new claim policies of all of the transportation companies. As long as we're going to have to self-insure for at least one third and up to as much as 50% of our transportation damage losses, this makes private carriage much more lucrative to us." ■

FRANK MALONE

WATCHING WASHINGTON

YOUR MAN IN WASHINGTON? Many railroads have men here to solicit Government traffic. Nine large railroads, however, now have men in Washington whose job exclusively or predominantly is to pursue legislative matters. These men watch Capitol Hill, the Interstate Commerce Commission, and any other office, court or agency that touches railroads through laws, rules or decisions. They keep the executive office back home tuned in to channel D. C. And, in public testimony or legal briefs and in private talks with lawmakers and Federal officials, they promote and defend company (and industry) interests.

FOUR WITH BIG TITLES came to Washington in 1969. With the rank of vice president, they work for railroads that previously did not have separate legislative representatives. They are: Illinois Central's William J. Taylor, former Railway Express Agency president; Norfolk & Western's Walter S. Clement, former N&W western-region vice president; Great Northern's Lloyd L. Duxbury, Jr., former Minnesota speaker of the house; and Northern Pacific's John C. Ashton, former REA vice president.

OTHERS HAVE BEEN HERE LONGER. Also with the rank of vice president is Santa Fe's Robert M. Clark. He has been in Washington since 1950. Another Santa Fe man, Alan J. Moore, administrative assistant, has been here since 1957. The record, however, apparently is held by Penn Central's William H. Tinney, executive representative, who came to Washington for the Pennsylvania Railroad in 1944. PC also has F. Gibson Darrison, Jr., executive representative, who came here for New York Central in 1956. Union Pacific's Richard N. Little, general solicitor, has been here since 1965. Southern Railway, although headquartered in Washington, has had a separate Capitol Hill man since 1964—Frank L. Barton, assistant to the president. And C&O/B&O, with big offices just 30 miles away in Baltimore, keeps a man in Washington full-time. He is Charles R. Van Horn, assistant vice president—government relations since early 1968.

SOUTHERN PACIFIC WATCHES WASHINGTON through the local law firm of Steptoe & Johnson. One Steptoe member is Jeremiah C. Waterman, who was SP's full-time Capitol man during the years 1959-66. Seaboard, Frisco and Missouri Pacific keep an eye on Washington through men who also have traffic responsibilities.

Every one of these covered hoppers is exactly the same.

Except one cost us $128,432.78.

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But, it takes a lot to come up with the single right answer like the versatile Pullman-Standard covered hopper car.

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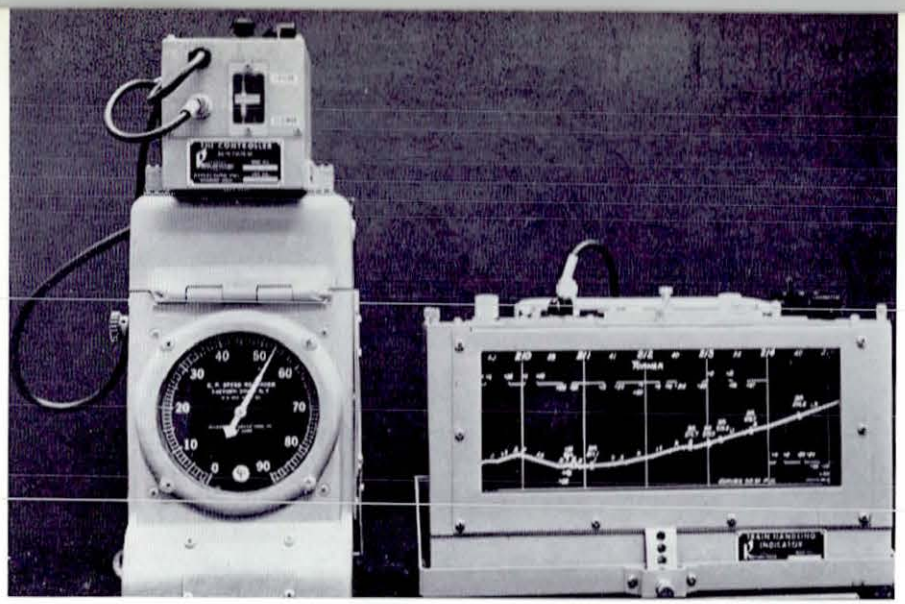


TRAIN HANDLING INDICATOR (right) and its companion component, the Speed Controller, applied to the locomotive's speed indicator, weigh a total of only 31 pounds.

Frisco engineers get a look ahead

THI has synchronized profile tape which aids train handling.

DEVELOPMENT OF CONCEPTS occurred on Frisco which now plans THI installations on 18 of its locomotive units.

The Frisco has just introduced a new train control device which can provide a graphic biography, a moving pictorial display, of up to five miles of the trackage lying ahead of a speeding train. Called a Train Handling Indicator (THI) and mounted directly in front of the cab seat in a lead locomotive, the device gives the engineer a precise, comprehensive "view" of the track ahead. Furthermore, it provides him with an up-to-the-minute picture of where his moving train—from lead unit to caboose—is at any time during his run.

Convinced that the device can help further improve over-the-road safety performance, the Frisco has ordered 18 for installation in lead locomotives. Explaining the purchases at a press conference in St. Louis in mid-December, Frisco President Richard C. Grayson said, "Safe operation of a train requires knowledge of the conditions to be encountered ahead—the ascending and descending grades, speed limitations, curves, signal systems and crossings."

He added that "while some of this information can be gained through experience on a specific run, this is the first practical tool developed to completely orient either experienced or new engineers with what lies ahead on their route of travel."

● **Acts like radar.** While the THI whose performance is unaffected by hilly terrain or poor weather conditions—not even the thickest of pea-soup fog—may seem to act like some kind of radar device, there is really no similarity. The instrument is really an electro-mechanical device. A key component is a track profile tape properly scaled and containing all vital information about the route being followed—bridge locations, signals, mile markers, switches, poles per mile between markers, etc. Each tape, which can carry as much as 500 miles of route information, is a detailed route biography in itself.

A companion device of the indicator, called a Speed Controller, synchronizes the speed of the profile tape with the speed of the train. In its role as synchronizer, the controller actually converts the locomotive's speed into a constant number of electrical impulses per mile. When received in the indicator, these electrical signals tell the profile tape how fast it should move across the display.

The cab-mounted indicator is 9¼ in. high, a little over 6½ in. deep, and 15 in. wide. Its display window is 4¼ in. high and 12 in. wide. The tape scaling is two inches per mile, thus permitting a six-mile segment of the route to be displayed at one time. A back-lighted tape of polyester film presents train location and length in white on the display. The track ahead, meanwhile, shows up in red.

● **Practical uses.** "This indicator offers great potential for safer and more efficient train control by enabling the engineer to better control slack action in his train, thereby reducing stress on couplings, break-in-twos and damage to cargos. The more efficient handling of the train would also help to improve scheduling and simplify training. One of its most practical uses is for operation of trains in reduced visibility," Grayson said.

A prototype of the Train Handling Indicator was tested in all kinds of conditions in road haul service, according to J. P. Knox, chief mechanical officer for Frisco. The prototype was actually developed over a three-year period by three Frisco employees—Charles Battaile, assistant superintendent of safety and rules; Kenneth Dyche, master mechanic; and Ray Tyler, general road foreman-equipment. Reflectone, Inc., which now holds the patent rights to the device, is producing the 18 units.

Some of the special features of the instrument are:

—Compensation for variations in wheel size;

—Reversible tape direction for inbound-outbound use;

—Adjustable train length to match the consist;

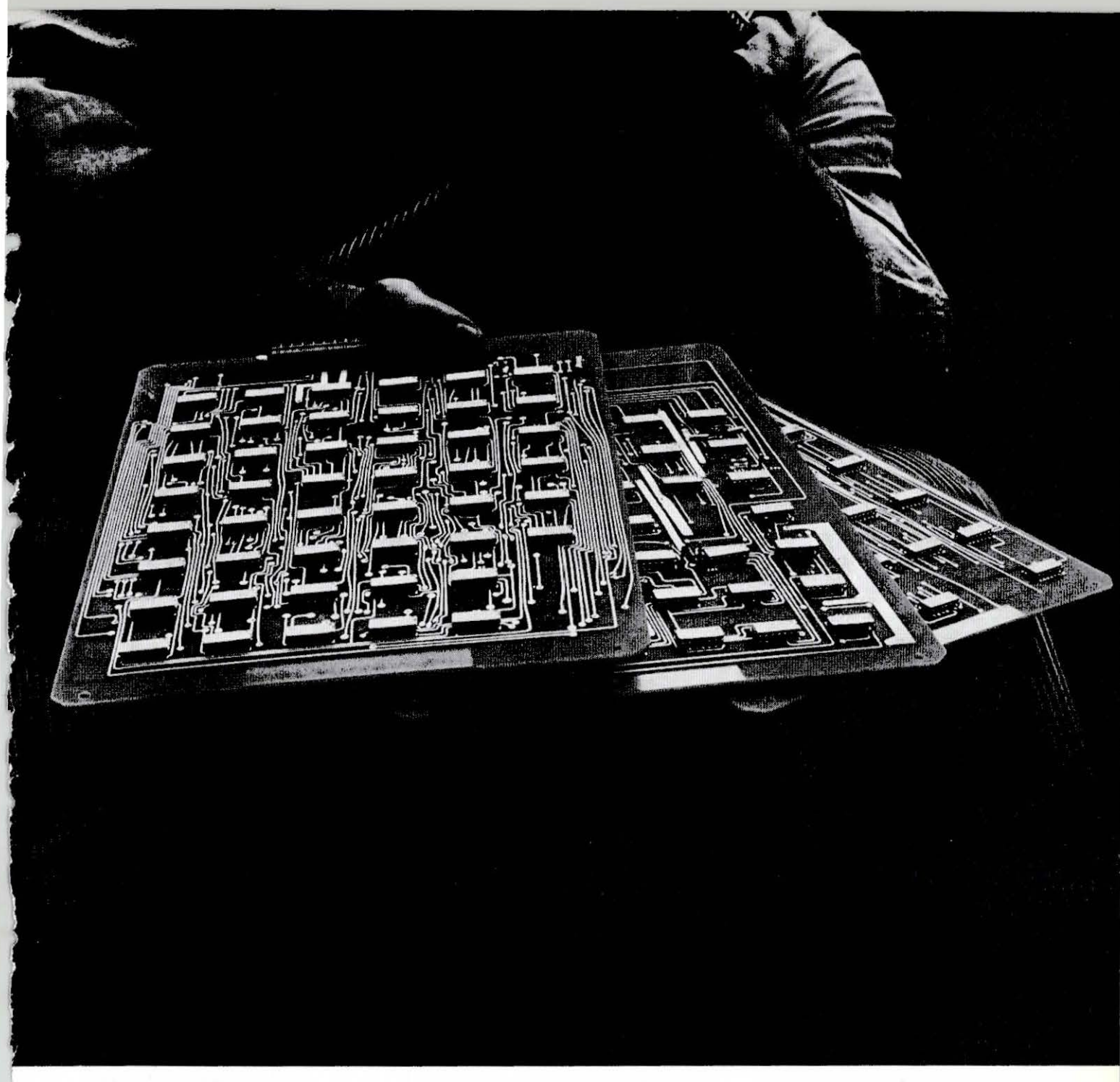
—Day/night lighting of the display;

—Carrying handle for portability;

—Operation on standard 72VDC locomotive power.

● **Simple to install.** "The units are very simple, easily installed and require little maintenance," says Knox. "The tapes are on polyester film and are reproduced from masters developed for each 500-mile segment of track to be covered by trains using the device."

Reflectone is offering a complete tape preparation service. It will create the master drawings from data supplied by the railroad and will make any quantity of tape reproductions for the device. ■



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Sylvania's new building block approach gives you the options you want, when you want them.

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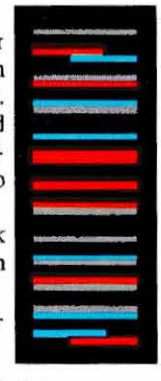
For the flexibility you need in ACI systems, talk to the pioneers about the 800 series third generation system.

Sylvania Information Systems, Commercial Electronics Division, Bedford, Massachusetts 01730.



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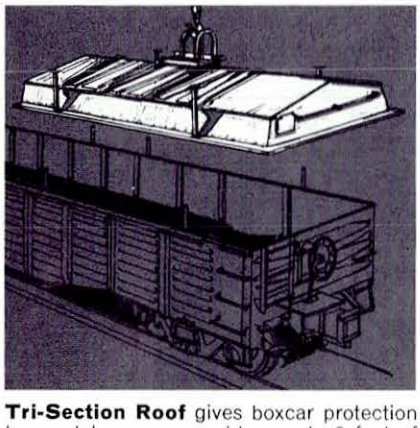
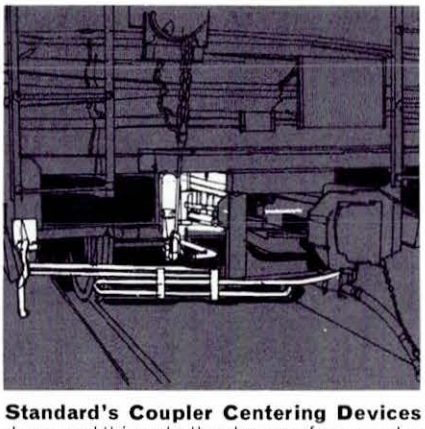
Here are just a few of the better car components built by Standard:



Tri-Section Roof gives boxcar protection to gondola cargo, provides up to 9 feet of clear height under the roof. It can be stacked out of the way in 3 sections. Roof available with running board and top inspection hatch, or with end-mounted hatch and no running board.



Standard's Coupler Centering Devices do several things better: keeps a free coupler centered in relation to the end sill, minimizing damage brought on by the passing of couplers; permits all movements of a car that are essential to safe operation. Available in four designs to suit a variety of applications.

Corrugated Ends have a resilient construction that produces spring-like action under impact, and a strength that is greater than other designs using the same thickness of metal.

components

- Rio Grande boxcar has diagonal panel roof, corrugated ends, side components, and uncoupling rods that are all made by Standard Railway Equipment.
- Standard Railway's equipment on this Missouri Pacific Hi-Cube car includes: release rigging, centering device, diagonal panel roof and corrugated ends.
- This SOO LINE gondola has Standard's extra-strength corrugated ends, uncoupling rods, and the new Standard Railway Tri-Section Roof.

Most lines feel that using Standard Railway Equipment is a better way to run a railroad. If you'd like to find out more, just call your Standard representative.

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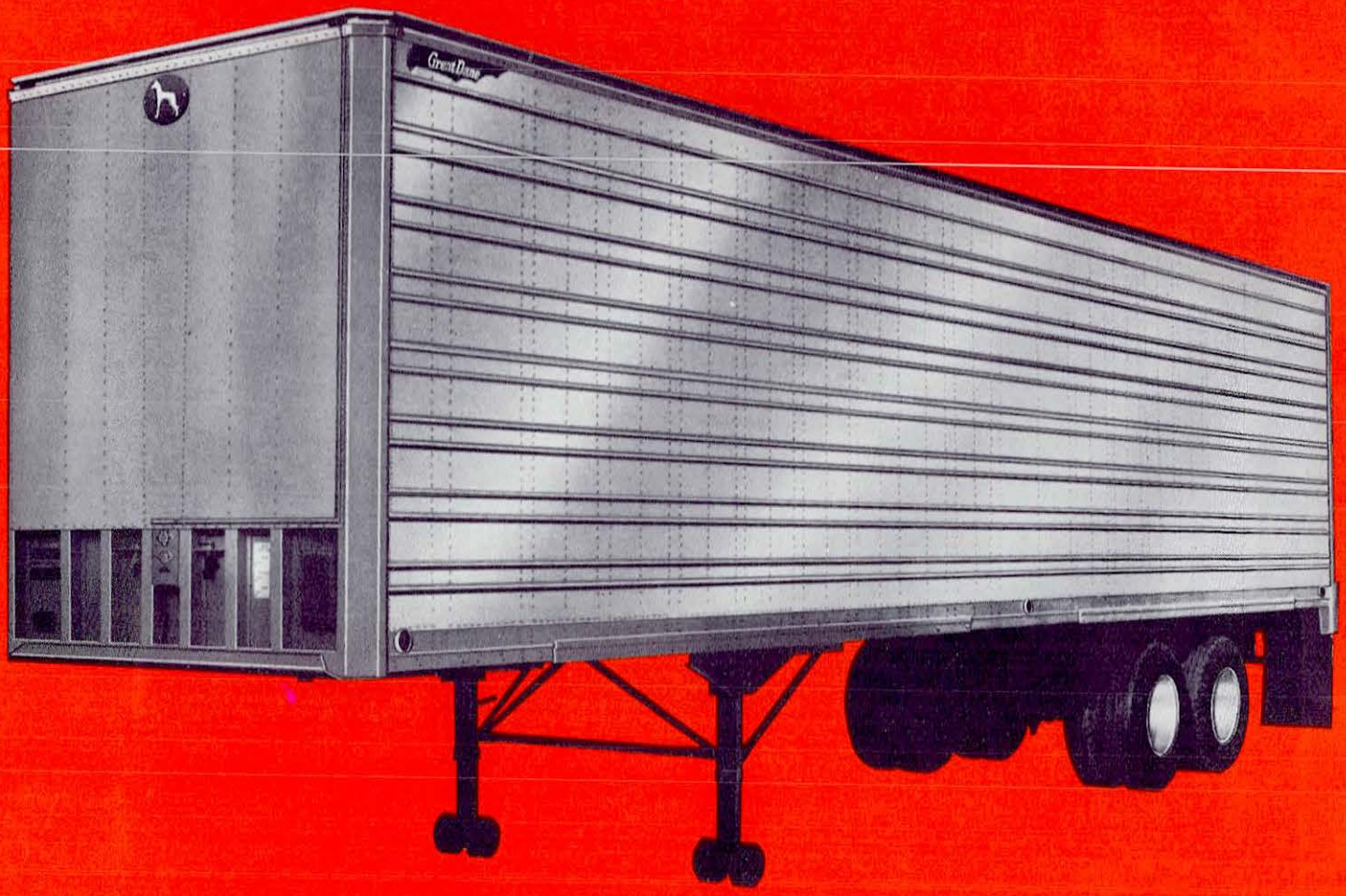

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Great Dane Trailers

Quality is our product

GF refines palletless loading

Ramway system permits mechanized handling of shipments not made on pallets.

General Foods has come up with a new box-car loading system which is producing (1) a 50% reduction in loading time, and (2) a 50%-plus reduction in in-transit damage.

The system is called Ramway. GF's Distribution-Sales Services Division developed it. And it's designed to eliminate manual loading of cars going to consignees who are not equipped to handle pallets or unit loads.

Much GF traffic moves in palletized loads. But, says R. A. Stringer, vice president and general manager of the distribution division, "the company still ships thousands of carloads annually to serve customers who are not able to take care of palletized loads. Before the development of Ramway, it took an average of six hours to assemble products and manually load a car. With Ramway, cars can be loaded in half the time—and as we gain additional experience, we should be able to cut this loading time even more."

● **Damage is down.** As for the lading-damage factor, Stringer says the new loading method "makes it possible to stack product cases tightly against each other and tightly against the car walls. Cases are stacked in palletized patterns and hold together in an interlocking unit. A side-shifting mechanism on a lift-truck makes it possible to pack cases this tightly into a car. And damage is being reduced by more than half, for cases loaded the new way."

GF is using the system in only one of its 21 distribution centers now, but "we hope to expand use of it to more centers."

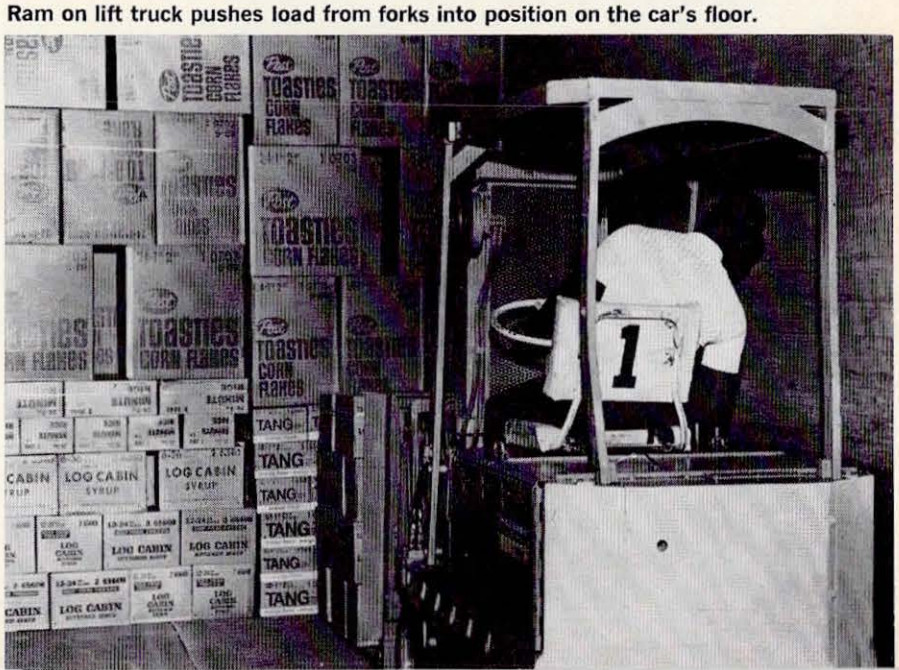
As GF describes it, "a typical Ramway operation begins with the fork-lift truck operator placing a pallet-load of products on the transfer section of the truck, which is a station for depositing and removing the product load. Once the load is placed, the driver uses special plates on the truck to push the pallet out from under the load. This operation transfers the product onto the plates of the fork-lift. The empty pallet then is moved from the transfer section and automatically stacked through use of hydraulic action. The stacking device has a 10-pallet capacity, and once this capacity is reached, a lift truck removes the entire stack."

Though Ramway itself is new, GF is already working on refinements—to simplify load transfer from pallet to fork-lift plates and to adapt it to truck loading. ■

Truck operator first places pallet load on Ramway unit's transfer section.

Special plates push pallet from under this load as it goes into automatic stacker.

Ram on lift truck pushes load from forks into position on the car's floor.



Tomorrow's railroads: A Canadian view

In a recent address to the Toronto Railway Club, S.M. Gossage, vice president and senior executive officer, CP Rail, pointed his remarks toward what he called "The Challenge of Tomorrow's Railroads." Here are excerpts:

I believe that the main job of railroading, the carriage of freight, will continue to be performed by means of the steel wheel on the steel rail. I would hazard a guess, however, that straight electric power may replace diesel-electric in mainline service . . . .

Cars are likely to be designed more and more to suit the specialized needs of shippers. Perhaps we can hope for a brainwave that will produce a car flexible enough to be adapted to different specialized shippers' needs. Otherwise we will be under increasing pressure to offset empty car mileage by quick turnaround and a high rate of utilization. I would, therefore, hope for cars adapted to automation and to simple maintenance.

Track may well see more fundamental changes, particularly if the trend to higher wheel loads and higher speeds continues. We may have to find a more permanent maintenance-free structure to withstand the increased stresses without crippling labor costs for upkeep.

In passenger service the tale may be different. Travel habits and travel needs are changing . . . In 1955, CP Rail spent more than $45,000,000 on new trains. At that time, the railways accounted for about 7% of the intercity passenger miles in Canada. Despite new equipment, competitive fare levels and heavy promotion, the railway share of the passenger market declined sharply. Today it is less than 3%, with cars, buses and jetliners serving the other 97%.

In 1961 the MacPherson Royal Commission on Transportation declared that passenger train services were uneconomic and were the most onerous of all the burdens imposed on the railways. "The railways," said the MacPherson Commission, "are accused of deserting communities by withdrawing passenger-train service. A more objective view would be that the communities have deserted passenger-train service."

Both railways have filed applications with the Canadian Transport Commission, citing losses amounting to more than $41,700,000 on uneconomic passenger train services in 1968.

Since all of CP Rail's passenger trains are uneconomic, we decided to face the issue squarely and to place all of our passenger operations before the CTC for examination. In our view, it is important that the public come to grips with the full significance of the problem—not see it in bits and pieces over a period of time.

These applications do not mean that all trains are going to disappear . . . CP Rail is prepared to operate passenger trains for as long as the CTC decides they are needed in the public interest, and we will do so as efficiently as we can.

Looking further ahead into the future, I can see a possible role for high speed ground transportation, but I do not think the trains will be operated on the same track as freight service. To compete successfully with air, much higher speeds will be necessary and this will

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But can we get away with saying that our piggyback service is better than the other guy's? We think so.

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Rock Island

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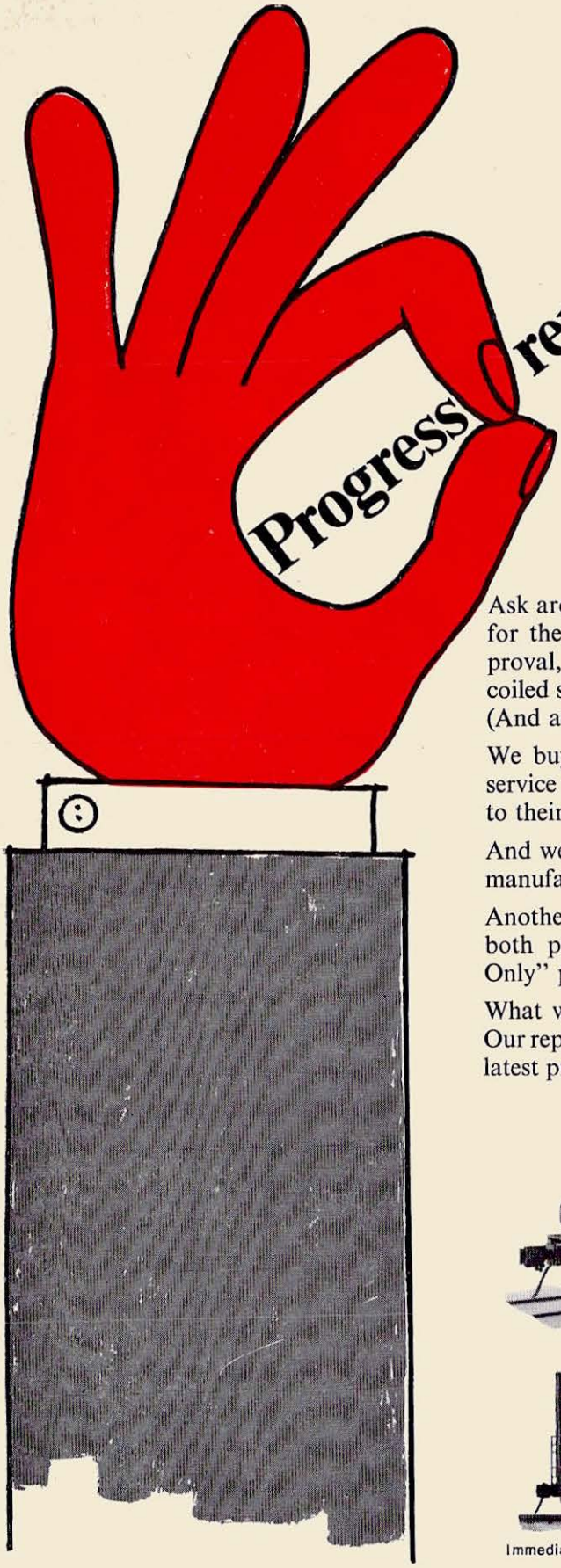

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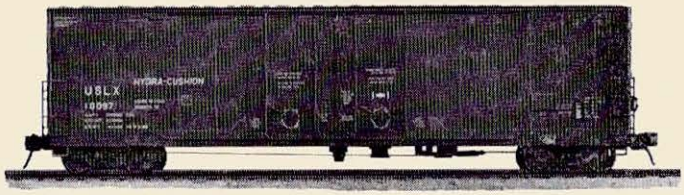

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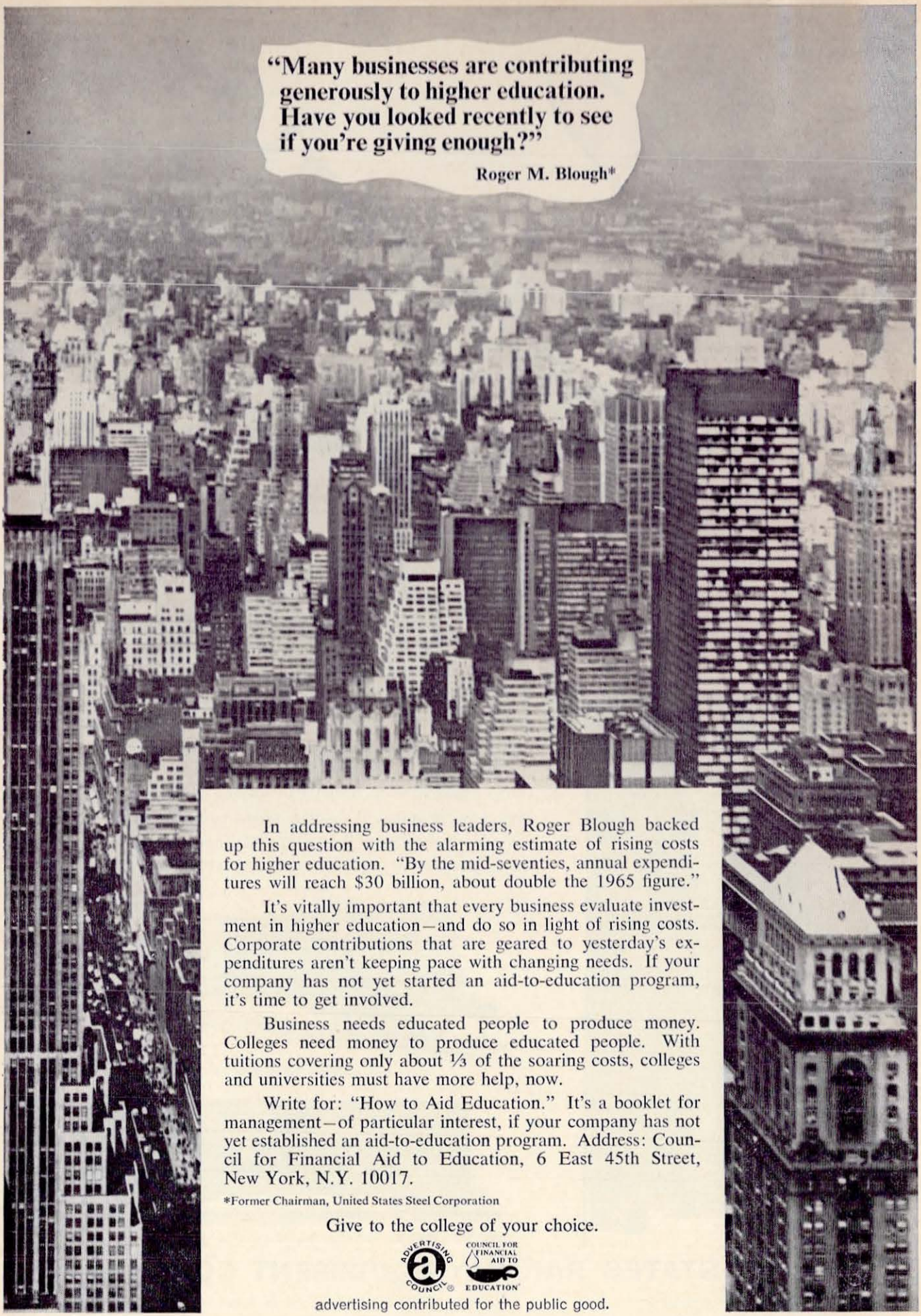
"Many businesses are contributing generously to higher education. Have you looked recently to see if you're giving enough?"
Roger M. Blough*

In addressing business leaders, Roger Blough backed up this question with the alarming estimate of rising costs for higher education. "By the mid-seventies, annual expenditures will reach $30 billion, about double the 1965 figure."

It's vitally important that every business evaluate investment in higher education—and do so in light of rising costs. Corporate contributions that are geared to yesterday's expenditures aren't keeping pace with changing needs. If your company has not yet started an aid-to-education program, it's time to get involved.

Business needs educated people to produce money. Colleges need money to produce educated people. With tuitions covering only about ⅓ of the soaring costs, colleges and universities must have more help, now.

Write for: "How to Aid Education." It's a booklet for management—of particular interest, if your company has not yet established an aid-to-education program. Address: Council for Financial Aid to Education, 6 East 45th Street, New York, N.Y. 10017.

*Former Chairman, United States Steel Corporation

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require dedicated and specialized track. This may be conventional or it may involve air cushion vehicles with linear induction motors, or even the piston-like travel in a vacuum tube . . .

In any case, I think it is likely to veer away from the conventional multi-purpose track and locomotive . . .

Speculating on the hardware of the future is fun, but . . . I want to spend more time on software—the organization and manning of the railroads. It is perhaps significant that I am using the computer terms "hardware" and "software," for the computer will affect profoundly both the organization and manning of the railroads.

In the first place, railroads will be part of transportation systems. We in Canadian Pacific have recognized this fact for some time. Below the border, railroads are not so fortunate, being severely restricted in intermodal ownership. Some organization will step in there to fill the need for a complete transportation system. If the railroads are not allowed to offer this complete service they will be left as mere subcontractors with their traffic controlled by an outside organization . . .

Running a multi-modal transportation system is still a complex problem requiring in the management of each mode a grasp of transportation as a whole.

These problems of transportation themselves must be approached as systems. They involve the total process of transferring goods from the point of manufacture or extraction to the stage of final utilization. This involves much more than the physical movement of goods from point A to point B. It involves an understanding of the flow from the source . . . through those storage functions necessary to adapt the flow to the requirements at the point of utilization . . .

What sort of people are we going to need for this brave new world, and where are we going to get them? . . . Historically in the railroad business a high proportion of officers have risen from the ranks. This has been a strength of the industry. As a body railway officers have a reputation for hard work, responsibility and practical knowledge second to none. We will always need in railway service the knowledge and judgment gained from the rigors of practical experience. To provide this full knowledge and judgment we must continue to draw on the resources of all our employees. However, while making the fullest use of the abilities available to us in our work force, we must also see to it that we bring into that work force sufficient men of high qualification to keep the industry in the forefront of competition . . . ■

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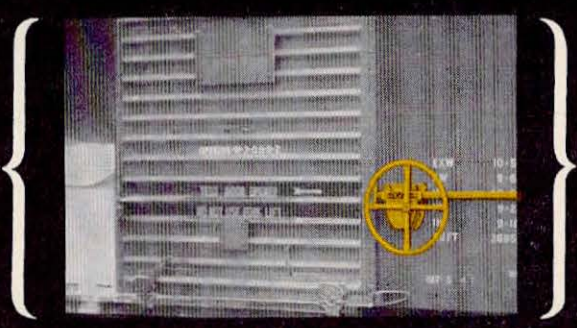

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LUTHER MILLER

AS THE EDITOR SEES IT

HOW DO THE SEVENTIES SHAPE UP for railroads around the world? International Railway Journal—the overseas member of the Railway Age family of magazines—put the question to railway leaders in the U.S., Japan, Britain, France and Germany. AAR President Tom Goodfellow's reply was so cogently expressed that we appropriated it for this week's editorial (p. 88). The views from overseas also make fascinating reading, adding up, as they do, to one ringing message: The age of railways is far from over. It might almost be said, to borrow a memorable phrase from DOT Secretary John A. Volpe, that railroads are just beginning to roll.

THERE IS UNIVERSAL AGREEMENT that railroads, after years of watching their passenger business wither away in the noxious fumes of the automobile and the airplane, will recover some lost ground in the Seventies. But there is also agreement that this must be accomplished with a whole new breed of trains, not the museum pieces so dear to the hearts of traditionalists. Kenjiro Miyaji, chief engineer of Japanese National Railways, predicts the creation of a multi-billion-dollar, 3,000-mile high-speed network in Japan. Dr. Sydney Jones, member of the British Railways Board for engineering and research, talks confidently of the future of Britain's Advanced Passenger Train, now emerging from the drawing boards, with its radically new suspension system that will permit 150-mph speeds over unimproved track. Dr. H. M. Oeftering, president of German Federal Railways, foresees a vast fleet of 125-mph trains wresting traffic away from the airlines on runs up to 250 miles.

DR. OEFTERING'S GLOWING FORECAST of a German high-speed passenger-train system is extended to cover all of continental Europe (plus Britain, via the Channel Tunnel) by Louis Armand, the former head of French National Railways who now heads the International Railway Union in Paris. But Armand's main interest is the freight train. He foresees "super freight railroads" whose future "must be developed more and more around the container and, more especially, the standardized trans-container, so that the inevitable trans-shipment operations between varying modes of transport can be simplified." He predicts the emergence of integral trains, and diminishing importance for class yards. But, in Armand's view, "The main reason for regarding the future with optimism is based on the application of automation and cybernetics to the railways. No essential sector of railway activity will escape from cybernetics, whether it be regulation of trains, distribution of rolling stock, stock management, seat-reservation, or tariffs." His colleagues in the U.S., Britain, Germany and Japan do not differ on these essential points, though their main emphasis is on the broadening role of the container in tomorrow's multi-modal systems. (The U.S., of course, must first change some archaic laws to permit multi-modal companies even to exist.)

A CONNECTING THREAD runs through all of these forecasts, and it is this: A new age of railways can be in the making. But it will come only if railway managers can make a clean break with yesterday—and apply tomorrow's solutions to tomorrow's problems. Or as Tom Goodfellow puts it: "Accept the fact that the past is forever gone."

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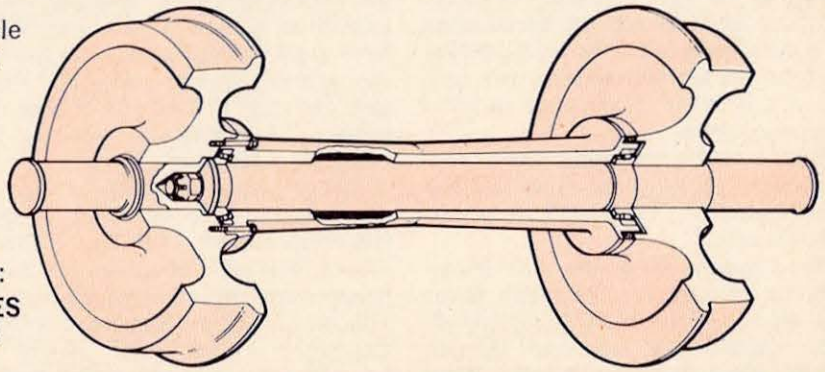

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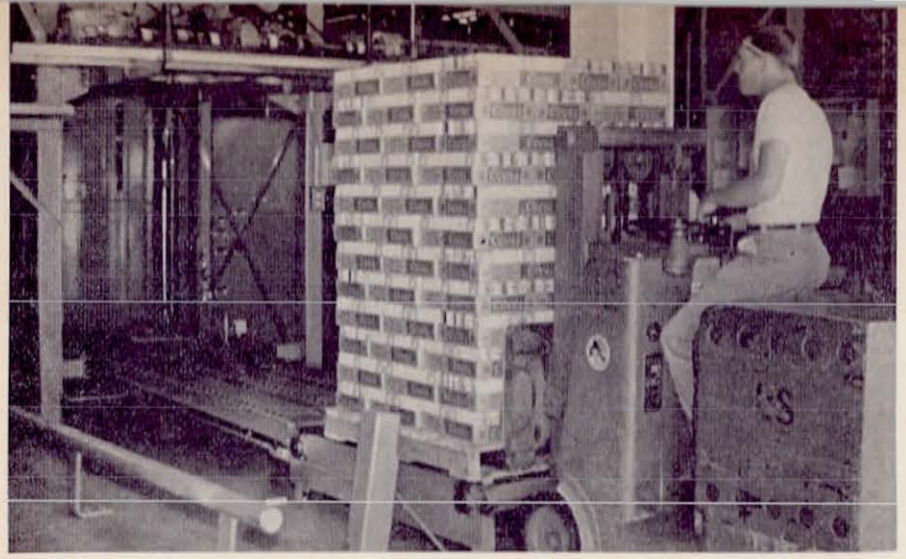
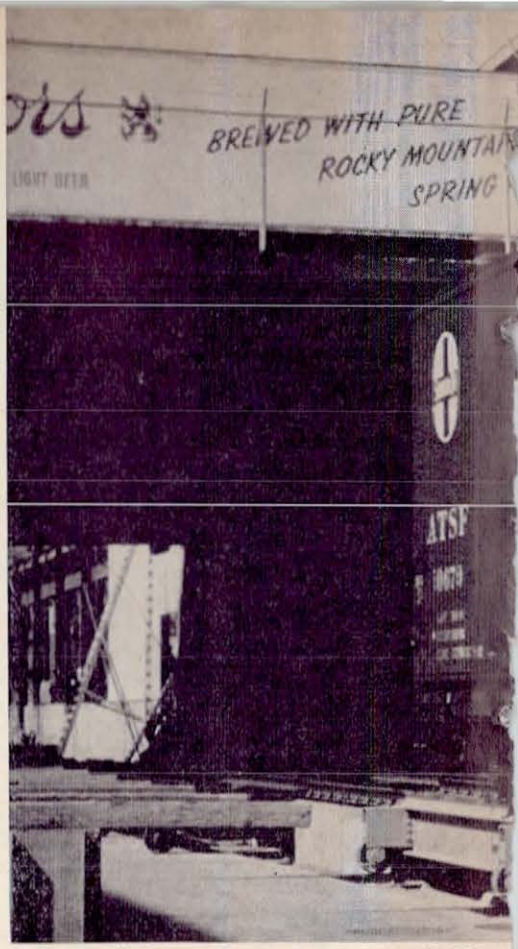


FORKLIFT moves palletized six-packs directly from the canning line to the box car.



Self-propelled transfer table moves 148,000-

Coors yard system moves beer fast

Colorado brewer decided rail was the best way to supply its territory, so it developed systems that use rail best.

To witness super efficiency in siding operations, the place to visit is a brewery. Specificially, visit the brewery of Adolph Coors Co. in Golden, Colorado.

As an eye-opener, you'll see up to 60 cars a day being loaded with fresh beer for distribution to 11 western states. Nearly as many cars will be arriving with rice, barley, hops, silica sand, feldspar, potter's clay, building supplies and other materials consumed by Coors' brewery and ceramics manufacturing complex on the eastern slopes of the Rockies. Within a single day more than 100 cars will often be moving in and out of a yard and loading area scarcely more than a mile in length.

The smooth movement of freight through the Coors complex results from a company policy of actively seeking out technical advances that will improve the efficiency of their distribution.

One of the most significant of recent technical advances was the introduction of polyurethane foam as an insulating material for non-refrigerated box cars. These cars solve a shipping problem unique to Coors.

Unlike most other beers, Coors beer is always kept below 50° from the time it is brewed until it is sold to the retail customer.

The company set temperature limitations to maintain the distinctive flavor and quality of its beer. Company officers explain that heat and age adversely affect flavor and quality. Both factors are said to cause gradual changes in beer's protein structure, reducing digestibility and diminishing flavor.

● **Causes shift to rail.** The ability of the foam-insulated cars to maintain temperature levels is the main reason the company is now shipping approximately 85% of its output by rail. This represents an almost complete reversal of its shipping practices a decade ago, when trucks hauled 80% of Coors beer.

At that time, the high cost of building and operating iced and mechanically refrigerated cars prevented railroads from offering competitive rates on all but the longest hauls.

Rail began increasing its share of volume in the mid-60's when Coors tried piggybacking for about a year. Then, in 1965, the Colorado & Southern began supplying the first of the 400 urethane-insulated cars it eventually would furnish to Coors. Traffic was shifted from truck to rail as fast as the new cars arrived. Today, nearly 800 of the new cars are working for Coors. The company is negotiating with the railroads for 110 more.

The principal advantage of the urethane insulation is its ability to maintain temperatures. Cold beer loaded at Golden will not change 1° per day in temperature, regardless of the weather. This means that a shipment to southern California, Coors' most distant but largest market, will arrive with the beer below the 50° maximum.

A secondary, but also important feature of the urethane insulation is its ability to guard against condensation. This has greatly reduced water damage to packages.

● **Car control important.** To get maximum efficiency from its system, Coors strives for full utilization of all cars assigned to it. The company's policy is that cars must be turned around in not more than a day at both ends of the line.

The company also has a staff of car checkers who make certain that its cars don't wander to other shippers when returning empty.

The average turnaround for the entire 11-state distribution network is 13 days. Turnarounds on California shipments average 16 days. The typical box car makes two round trips a month.

The cars used are 60-ft long and have 148,000-lb capacities. They are Hydra-Cushioned and fitted with adjustable side fillers and bulkheads that firmly dunnage all loads.

The combined effect of removing condensation problems, using Hydra-Cushioning and securely holding the load has been a dramatic reduction in losses from physical damage. During the past year, damage claims averaged only $1.38 per carload (against $38 per car when iced reefers were used). Most of what little damage is being experienced results from the occasional buck-

lb capacity car from loading dock to transfer line without interfering with other cars.

ling of side fillers. This hazard is being eliminated as stronger braces are installed during routine car maintenance.

● **Problems solved.** The rapid switch from truck to rail did not happen without causing massive headaches for Coors' transportation department. Geared as it was to handle mainly truck traffic, the plant had inadequate facilities for a heavy rail movement.

Many other major shippers might have been discouraged by this problem and have attempted to slow the pace of transition. The Coors people believed otherwise. As one executive explained, "Once we decided that rail was the most economical way to ship, we felt it our job to find the best way to use rail. We knew we'd have some big problems at first, and we sure did. But we also knew we'd be able to solve those problems, and we did that too. In fact, some of our solutions worked better than we had expected."

Fortunately, Coors has an in-company capability for solving the problems it faces. For more than two decades, the company has been constantly rebuilding and expanding both its beer and ceramics plants. (The company also is a leading producer of scientific ceramic products, including heat shields for nuclear war heads.) Generally unsatisfied with the services of outside designers, contractors and material suppliers, the company has developed its own engineering and construction force, now numbering some 600 men.

In short order, this force designed and built what has to be regarded as one of the most efficient siding operations to be found anywhere.

The cost, reportedly, was high. But, in the opinion of one Coors vice president, it was well worth it. "When we decided to shift to rail, we knew we would have problems. I don't think we recognized how serious that might be. During the early months of the shift to insulated cars, we were in danger of choking on our own output simply because we couldn't handle rail cars fast enough. Engineering came up with the solution, and we invested substantially in tracks, switches and other hardware needed to implement their ideas. It's paying off."

● **Transfer tables and radios.** The key element of Coor's car moving system is a series of transfer tables along the loading dock. These transfer tables quickly move individual box cars into and out of loading positions without disturbing other cars in the string.

Each table is slightly larger than a box car. Each is self-propelled by electric motors mounted in the undercarriage.

Spotting a car is literally a push-button operation. A brakeman simply pushes a button and the empty transfer table, complete with its own set of tracks, rolls out perpendicular to the loading dock. It displaces a parallel section of transfer track enough so that its rail lines up with the rest of the transfer track. At this point, the table automatically stops.

A switch engine spots the car, is disconnected, and backs off. The control button is pushed again and the table returns to its original position, carrying the boxcar to the loading area. The displaced section of transfer track is pulled back into position and dropped when in line. The operation takes less than two minutes.

When the spotted car is ready for loading, another push of the control button moves the transfer table almost flush against the loading dock. A bellows curtain moves against the car to protect against heat loss while the car is loaded.

The smoothness of the transfers is enhanced by equipping the brakemen with portable two-way radios with which they talk to the engineers. Two-way radio also allows a central dispatch office to coordinate the movement of all freight in the yard.

● **Warehouseing reduced.** The speed of the loading operation has provided an important bonus for Coors. During the past three years, the company has been able to practically eliminate warehousing at Golden, saving money on space and mechanical refrigeration.

The space saved by practically eliminating warehousing allowed the company to expand production facilities, a move greatly appreciated by its customers. Even with the latest expansion, demand exceeds supply and output occasionally must be rationed among distributors. A building program to further increase plant capacity is currently underway.

● **Nine railroads involved.** Beer leaving Golden goes out over a network that includes nine railroads. Colorado & Southern is the originating line. Transfers to most other lines are made in Denver. Six other lines carry most of the freight. They are the Atchison, Topeka & Santa Fe; Chicago, Burlington & Quincy; Denver & Rio Grande Western; Southern Pacific; Union Pacific; and Western Pacific. On the eastern fringes of Coor's distribution area, the Missouri Pacific and the Chicago, Rock Island & Pacific also carry Coors beer. Insulated cars are supplied by each carrier in approximate ratio to the tonnage carried.

In time, other railroads may become involved in the distribution of Coors beer.

Because of the purity of Rocky Mountain spring water, Coors prefers to manufacture beer only in Golden, Colorado. Company officials say that this philosophy will probably prevail as long as freight rates allow Coors to remain competitive in its marketing areas. ■

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LIFTS 50,000 LBS.
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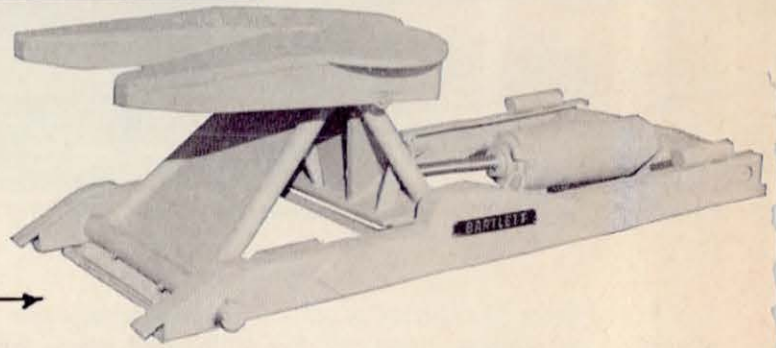

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- May Be Combined with Stanchion Hook-ups
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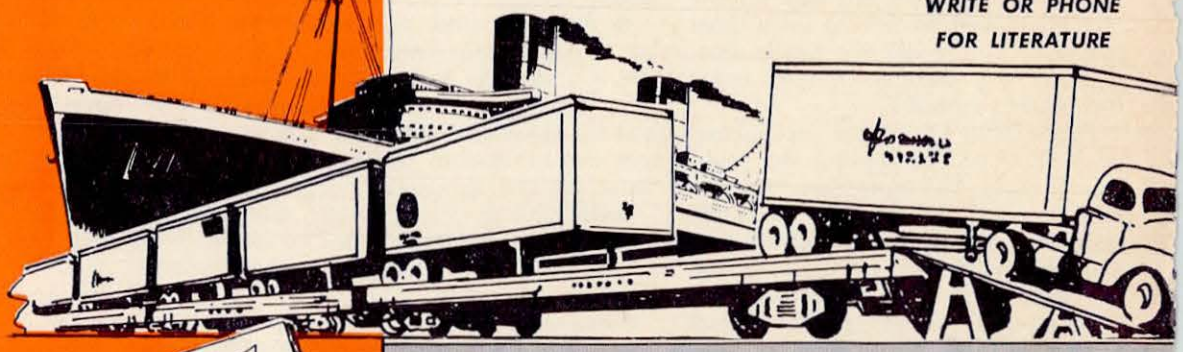

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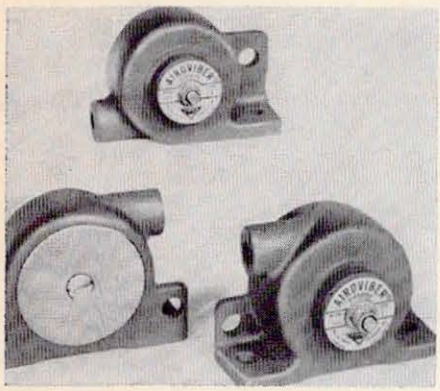
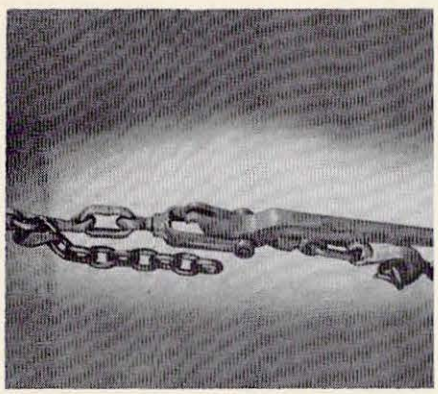
NEW PRODUCTS REPORT



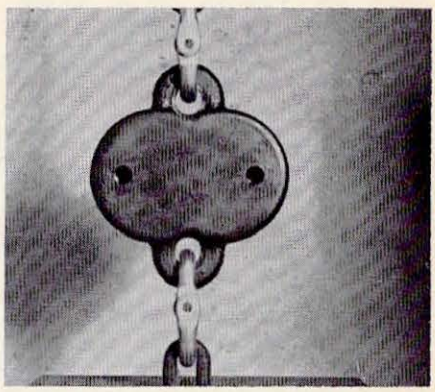
Pneumatic vibrator (RA-1)

A newly redesigned ball-type pneumatic vibrator produces higher frequencies without changing input. The vibrator has been designed for a wide range of bulk-material-handling applications requiring fairly high frequencies, such as cement weigh batchers, bins, chutes and hoppers. The redesign basically permitted greater mounting versatility. It also resulted in greater vibrator effectiveness, as well as in higher speeds. *Miller/Viber.*



Chain binders (RA-2)

With the introduction of high-test chain binders for use with high-test chain sizes ⅜ and ½ in., Canton standard load binders designed for loads of 18,000 lb have been redesigned and upgraded for loads of 26,000 lb. The modified design and heat treatment permits this extra heavy duty application. The product is considered extra safe to comply with more rigid road safety standards. Four models are offered. *Canton Manufacturing Co.*



Shock absorber (RA-3)

A lightweight shock-absorbing unit called Kinetic Control is designed for use where impact loading is a factor and where steady tension is desired. The unit may be used in tie-down, mooring, tow-line systems on railroad cars, flatbed trucks, steamships and barges. With a working load limit of 9,000 lb, each unit is proof tested to 18,000 lb. It works well when used with a load as light as 800 lb. *Campbell Chain, division of Unitec Industries.*

Side-loader (RA-4)

LeTourneau's new model 2682 Side-Porter for container or piggyback handling has a rated capacity of 67,200 pounds for top picking and 90,000 pounds for bottom picking. When equipped with new model 251 Spreader, as shown in the accompanying illustration, the unit is adjustable to handle containers from 20 to 40 feet. A newly designed cab provides increased visibility for the operator. As in earlier models, drive is electric and controls electro-hydraulic. *R. G. LeTourneau, Inc.*

Pushbutton keyset (RA-5)

A twelve-button keyset that facilitates rapid manual entry of serial decimal or binary coded decimal data into electrical or electronic devices is type 1200. The touch calling buttons are numbered in the standard telephone configuration from one to zero. Two additional buttons (# and *) may be used to enter "start," "stop" or other special instructions. The keyset has a "make and "break" capability of up to one ampere, 50 watts. *Automatic Electric Co.*

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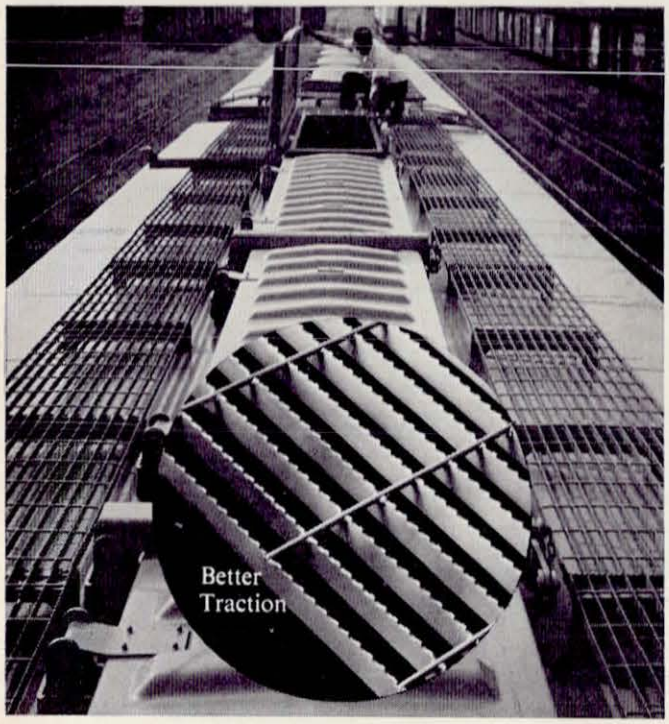

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WELDFORGED Safety Platforms are available for all types of applications on end, side, or top of car. Get details today including suggestions on how to reduce installation costs. Write 101 S. Wacker Drive, Chicago, Illinois 60606, Dept. RA-912.

UNITED STATES GYPSUM
TRANSPORTATION PRODUCTS DIVISION

Circle 28 on coupon page 77

LETTERS

Tariff computerization

New York, N. Y.

To the Editor:

Your "Monday Morning Report" in the November 24, 1969, issue focused the spotlight on the Railroad Tariff Computerization Project and the commendations are most appreciated.

As you indicate in the article, the railroads are actively participating in the activities of the Transportation Data Coordinating Committee and applaud the efforts of that group. However, you have incorrectly stated: "The rail move is a reaction to the effort of a broader-based group, the Transportation Data Coordinating Committee. . . . ." Actually, the Railroad Tariff Computerization Project was formulated during the year 1965 and the project got under way in January 1966. The Transportation Data Coordinating Committee became an entity on April 30, 1968, and was the outgrowth of a recommendation by the User Panel of Transportation Association of America in April 1967. Instead of being a "reaction" to the efforts of any group outside the railroad industry, the Tariff Computerization Project was, indeed, an "action" demonstrating the initiative and foresight of railroad traffic executives in employing these new techniques.

Again, let us emphasize that this communication is not intended to be critical of the TDCC in any way, but merely "set the record straight" with respect to the historical facts pertaining to this development.

C. S. Baxter, Chairman
Traffic Executive Association-Eastern Railroads.

J. M. Souby, Jr., Chairman, Executive Committee
Western Railroad Traffic Association.

Bates B. Bowers, Chairman
Southern Freight Association.

Railroad rate of return

Blytheville, Ark.

To the Editor.

I have read with particular interest, your editorial in November 24 issue concerning Mrs. Virginia Mae Brown's attitude on recent 6% rate increase.

While I do understand your concern for the railroads' very poor return on investment, I cannot agree with your solution to the problem. There is great danger in following the principle of granting across the board rate increases based strictly on rate of return.

If a carrier only must prove poor return, where would you find an incentive to improve operating efficiency? It seems to me that this philosophy tends to breed inefficient operations, inept management and a general sluggish attitude among all railroad personnel.

I believe this industry needs an uplift in morale and we must find a way of rewarding creativity wherever we find it. This is vital to a progressive industry. I happen to think Mrs. Brown is on the right track!

L. C. Marsh

(A guaranteed rate of return need not foster inefficiency, as the operating records of the electric utilities have demonstrated. Utilities, of course, are guaranteed exclusive service areas. While railroads continue to be regulated as if they were monopolies, this situation ceased to exist many decades ago.—Editor.)

Herman C. Boyer
B&O

Arthur R. Broderson
B&O

Markley C. Craven
B&O

A.K. McKechnie
IC

PEOPLE IN THE NEWS

ASSOCIATION OF AMERICAN RAILROADS. — **Richard E. Briggs,** special assistant, **Interstate Commerce Commission,** named senior policy analyst, America's Sound Transportation Review Organization (RA, Sept. 15-22,p.11) **James W. Boone** named analyst for ASTRO.

BALTIMORE & OHIO.—Herman C. Boyer, assistant regional sales manager, Southwest Region, Cincinnati, Ohio, promoted to regional sales manager there, succeeding **Roland E. Poore** (RA, Nov. 24, p. 52). **Arthur R. Broderson,** sales manager, Philadelphia, succeeds Mr. Boyer as assistant regional sales manager, Cincinnati. **George R. Shepard,** division sales manager, Indianapolis, transferred to Cincinnati in the same capacity to replace **Patrick L. Mehlick,** who succeeds Mr. Broderson as sales manager, Philadelphia. **Markley C. Craven,** division sales manager, Youngstown, Ohio, appointed assistant regional sales manager, Pittsburgh, succeeding **Jon M. Clark,** recently named director of world commerce, Baltimore, **Nicholas J. Sturm,** district sales representative, Memphis, Tenn., appointed division sales manager, Youngstown. **Justus H. Lotts,** district sales representative, Davenport, Iowa, appoined division sales manager, Indianapolis, succeeding Mr. Shepard. **Edward W. Brodrick, Jr.,** assistant market manager—stone, clay and glass industry, Baltimore, appointed division sales manager, Toledo.

BESSEMER & LAKE ERIE.—J. F. Ingham appointed assistant to supervisor labor relations, Greenville, Pa.

R. B. McGinley, supervisor labor relations, Greenville, Pa., appointed manager labor relations.

CANADIAN PACIFIC—J.R. Crossley, assistant system manager freight sales, appointed marketing director—freight forwarder traffic, with headquarters as before at Montreal. **G.J. Askwith** named assistant to system manager, freight sales.

Position of district passenger agent, Winnipeg, abolished on Dec. 1 and replaced by position of superintendent of passenger services, who will report to regional manager, Operation and Maintenance. **G.R. Jenkyns** appointed superintendent of passenger services; **W.L. Greenway,** assistant superintendent, passenger operations; and **W.J. Casey,** assistant superintendent, passenger sales. **D.C. Wilson** named terminal supervisor, passenger operations, Winnipeg.

CP Rail's accounts and data systems department in Montreal has been restructured, **J. McL. Marshall** appointed director of data systems. **R. S. DeMone** named director of accounts. **F.L. Carter** named manager data system development and technical services. **A.M. Ross** appointed manager data systems operations. **C.L. Pimlott** named assistant manager data systems technical services. **D.J. Porter** appointed assitant manager data systems development.

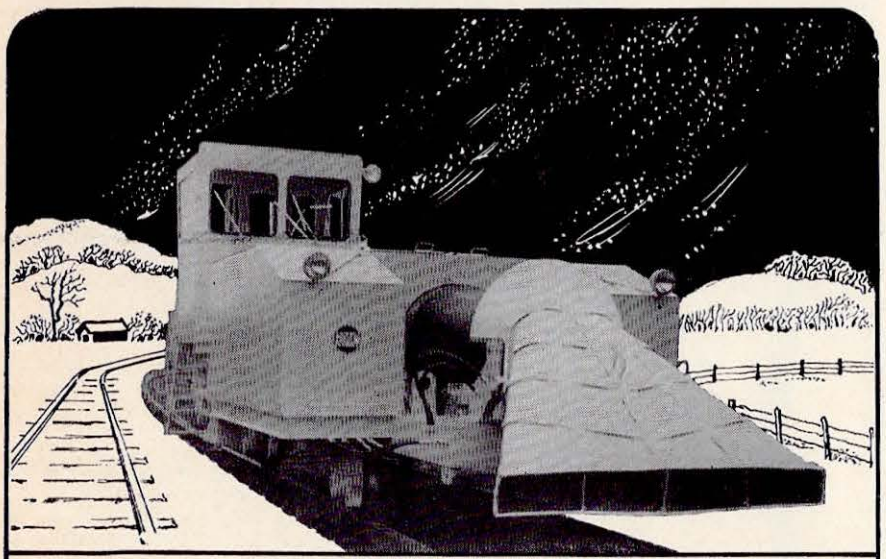
CHICAGO & NORTH WESTERN—Donald L. Joerger, director of taxation, named assistant to the vice president-finance. **J. W. Conlon,** assistant director-taxation, succeeds Mr. Joerger.

A. A. Enders, master mechanic, Chicago, named master mechanic. Proviso shop, Galena division and Clinton, Iowa, with headquarters at Proviso, Ill. **W. E. Langlands,** motive power coordinator, Chicago terminal, named shop superintendent, Proviso, to succeed **R. N. Campbell,** named diesel supervisor Chicago. Mr. Langland's successor is **J. L. Chada,** general foreman, Marshalltown, Iowa. **H. R. Spencer,** master mechanic, Lake Shore division, Green Bay, Wis., transferred to Chicago, with jurisdiction over Chicago shops and Wisconsin division. **H. K. Cox** transferred from the Galena and Wisconsin divisions to replace Mr. Spencer.

DETROIT, TOLEDO & IRONTON.—B. L. Everitt and **S. J. Milligan** appointed district sales representatives at Dearborn, Mich., and Cincinnati, Ohio, respectively.

ILLINOIS CENTRAL—Arthur K. McKechnie, director methods, systems design and programming, appointed assistant vice president computer systems.

JERSEY CENTRAL.—Donald N. Nelson appointed manager of transportation, Newark, N.J., with responsibility for freight train operation, schedules, classification, yard and terminal operation, power bureau, customer services and car accounting. **Edward P. Seiwert** appointed sales manager



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RMC **Snow Blowers**

Circle 27 on coupon page 77

—piggyback, freight traffic department, Newark.

MISSOURI PACIFIC.—J. D. Boling, trainmaster, Dupo, Ill., named assistant superintendent there, to succeed **L. L. Carmichael,** appointed assistant superintendent, **Chicago & Eastern Illinois,** Dolton, Ill. Mr. Boling's successor is **F. E. Chalfant.**

NATIONAL ASSOCIATION OF RAILROAD PASSENGERS.—Otto Janssen of Hopewell, N.J., has been named director of public relations and advertising for NARP, which has headquarters at 41 Ivy Street, S.E., Washington, D.C. 20003. Mr. Janssen has been an account executive with public relations and advertising agencies.

NORFOLK & WESTERN. — J. W. Tilton, southwestern traffic manager, Houston, Tex., retired Dec. 1, after more than 46 years with the N&W merged companies.

NORFOLK SOUTHERN.—Richard R. Riola appointed district sales representative, New York, succeeding **John R. Allen,** resigned.

PENN CENTRAL.—James M. Finch appointed regional industrial engineer, supervising a stepped-up drive to streamline the New England operations. Mr. Finch was vice president, research department, **New Haven,** when that road was merged with the Penn Central, and then became director of operations planning for New England.

SOUTHERN.—George E. Buckley, Jr., general supervisor fire prevention, Atlanta, Ga., appointed director of insurance, Washington, D.C., succeeding **Hugh Lowe,** retired after more than 42 years of service. **Thomas M. Lowe** named general supervisor of fire prevention, Macon. **Robert L. Gobble, Jr.,** appointed supervisor of fire prevention, remaining at Greensboro, N.C.

WESTERN MARYLAND. — J. S. Eaton, purchasing agent, Baltimore, retired Nov. 30, after over 38 years of service with the **WM. J. H. Lau, Jr.,** office supervisor, appointed buyer. **Mrs. Laura L. Stauffer,** administrative assistant to director, purchases and stores, appointed buyer. Abolished positions of purchasing agent, office supervisor, and administrative assistant to director, purchases and stores.

INDUSTRIAL TRAFFIC

Ernest A. Bickford has been named manager of eastern transportation sales, Industrial Products Division, **Goodyear Tire & Rubber Co.,** a newly created position, with headquarters at Philadelphia. Mr. Bickford will direct and supervise sales to railroad, airline and water transportation companies from Maine to Florida and Louisiana to Ohio.

Daniel J. Doherty has been appointed manager of transportation, Chemicals for Industry Plant, **Swift Chemical Co.,** Hammond, Ind. Mr. Doherty has 15 years of traffic background, including six years in the Rate Department, **Union Pacific.**

Harvey D. Belanger, assistant traffic manager, **Admiral Corp.,** Chicago, has been promoted to traffic manager.

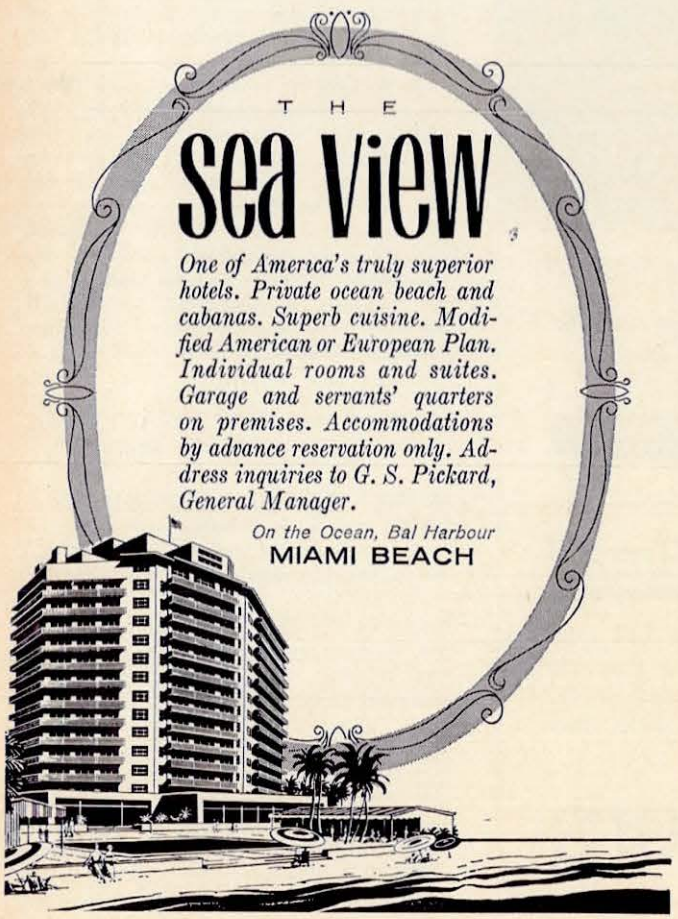
John H. Schuller has been appointed manager of scheduling and distribution, **National Castings Division, Midland-Ross Corp.,** Sharon, Pa. He was formerly assistant traffic manager and then scheduling manager.

Dale K. Prouty has been appointed assistant corporate director traffic and transportation. **The Richardson Co.,** Melrose Park, Ill. He was formerly traffic manager, **Admiral Corp.**

OBITUARY

Frederick H. Einwaechter, Jr., 73, who retired in Oct. 1961, as chief engineer—motive power, **Baltimore & Ohio,** died Nov. 29 in St. Agnes Hospital, Baltimore, Md.

Harmon H. McKenna, 68, who retired in 1967 as stationmaster, **Union Pacific,** at Union Passenger Terminal, Los Angeles, died Dec. 8 at Good Samaritan Hospital.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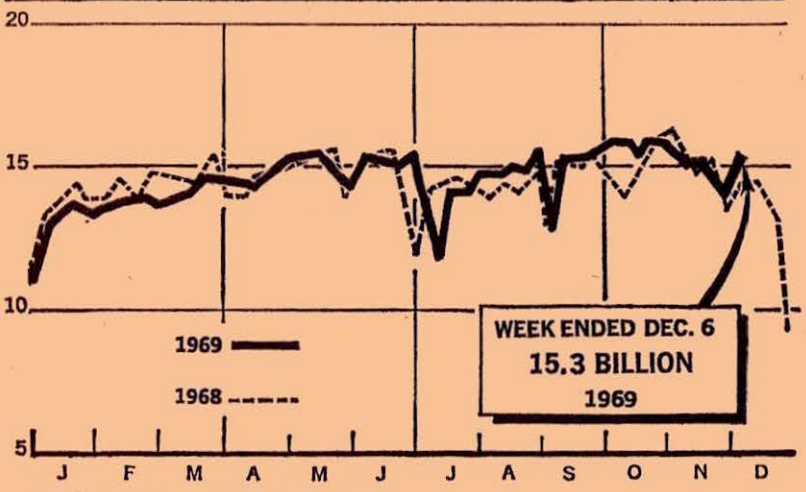
RA-12/69

RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



Source: Association of American Railroads

INDICES OF MATERIAL PRICES AND WAGE RATES*

(Class I railroads)

	Wage Index	Fuel	Other Material	All Material	Index of Wage Rates and Prices
1960	107.8	94.4	103.6	101.2	106.1
1961	110.4	96.3	103.7	101.7	108.2
1962	112.9	95.5	103.1	101.0	110.2
1963	114.1	95.0	102.8	100.7	111.1
1964	117.0	89.5	103.7	100.0	113.1
1965	123.2	91.7	104.5	101.1	118.2
1966	127.3	93.2	106.3	102.8	121.7
1967	135.6	95.9	110.1	106.4	129.0
1968	142.7	99.3	113.0	109.3	135.0
1969	152.8e	102.3	116.2	112.6	143.7e

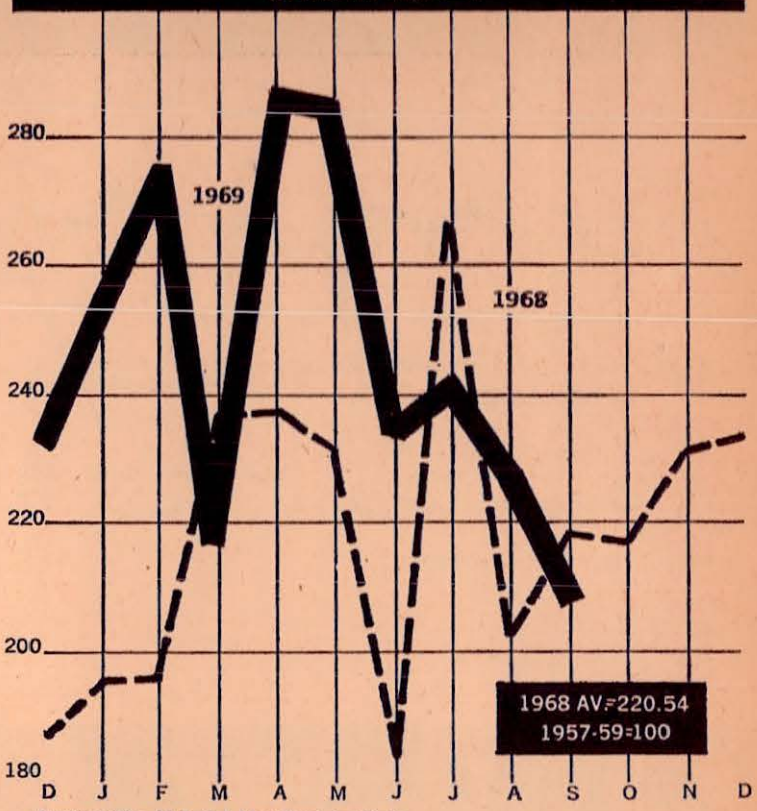
*Average 1957-59 100.
e—Estimated.
Source: Economics and Finance Dept., AAR.

Current Statistics

Net income, Class I roads	
Nine months, 1969	$372,000,000
Nine months, 1968	388,000,000
New freight cars on order	
Nov. 1, 1969	42,043
Nov. 1, 1968	21,388
New freight cars delivered	
10 mos., 1969	57,032
10 mos., 1968	47,599
Serviceable cars	
Nov. 1, 1969	1,360,659
Nov. 1, 1968	1,386,822

MATERIAL HANDLING EQUIPMENT BOOKINGS

(seasonally adjusted)



Source: The Material Handling Institute.

SHIPMENTS OF RAILROAD STEEL PRODUCTS

(OCTOBER AND 10 MONTHS 1969)

	NET TONS			
	October	Per Cent Change*	Ten Months	Per Cent Change*
Rails, trackwork and equipment	62,283	−7.7	890,331	+8.2
Freight and passenger cars and locomotives	187,383	41.5	1,911,759	+14.5
Street railways and rapid transit systems	5,140	−55.7	46,088	−34.7

*Per cent change compares 1969 periods with like 1968 periods.
Source: American Iron and Steel Institute.

A HALF-CENTURY OF FREIGHT-CAR DELIVERIES

Period	Railroads and Private Shops	Car-builders	Per Cent Built by Carbuilders	Total Deliveries	Market Compared With 1960-69
1920-1929	93,963	748,649	89.0%	842,612	38.0% higher
1930-1939	73,463	218,478	66.3%	291,941	53.0% lower
1940-1949	169,463	470,756	73.6%	640,219	0.5% higher
1950-1959	223,961	395,367	64.0%	619,328	0.1% higher
1960-1969	180,000*	431,000*	72.7%*	611,000*	

*Preliminary estimate.
Source: American Railway Car Institute.

MARKET OUTLOOK

CARLOADINGS

Loading of revenue freight in the week ended Dec. 13 totaled 547,897 cars, the Association of American Railroads announced on Dec. 18. This was a decrease of 11,087 cars, or 2.0%, compared with the previous week; an increase of 637 cars, or .01%, compared with the corresponding week last year; and an increase of 14,262 cars, or 2.7%, compared with the equivalent 1967 week. Ton-miles generated by carloadings in the week ended Dec. 13 are estimated at 15.0 billion, an increase of 3.3% above the corresponding week of 1968, and 9.3% above the 1967 week.

REVENUE FREIGHT CARLOADINGS

Commodity	Dec. 6 week	Preceding week	Per cent change
Grain	31,063	25,367	+22.5
Farm products	26,959	25,308	+ 6.5
Metallic ores	33,596	33,500	+ 0.3
Coal	109,503	97,844	+11.9
Crushed stone, gravel & sand	27,326	25,455	+ 7.4
Nonmetallic minerals	9,451	9,645	— 2.0
Grain mill products	21,102	20,145	+ 4.8
Food & kindred products	24,954	23,574	+ 5.9
Primary forest products	26,199	22,169	+18.2
Lumber & wood products (except furniture)	13,644	13,994	— 2.5
Pulp, paper & allied products	25,134	23,909	+ 5.1
Chemicals & allied products	27,777	26,012	+ 6.8
Petroleum products	11,751	9,791	+20.0
Stone, clay & glass products	20,451	17,613	+16.1
Coke	10,164	8,969	+13.3
Metals & products	27,794	26,592	+ 4.5
Motor vehicles & equipment	24,565	21,329	+15.2
Waste & scrap materials	14,564	13,595	+ 7.1
Forwarder & shipper assn. traffic	7,002	7,289	— 3.9
All other carloads	64,403	62,981	+ 2.3
LCL traffic	1,582	1,515	+ 4.4
Total cars loaded	558,984	516,596	+ 8.2

CUMULATIVE TOTAL 49 WEEKS	1969	1968	1967
	26,822,109	26,820,848	26,649,894

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Dec. 6 totaled 24,078 cars, carrying 39,123 trailers, compared with 26,621 cars, carrying 41,714 trailers, in the corresponding 1968 week. Loadings for 1969 up to Dec. 6 totaled 1,273,778 cars, carrying 2,096,892 trailers, compared with 1,268,203 cars, carrying 2,064,291 trailers, in the corresponding period of 1968.

IN CANADA

Cumulative	Revenue Cars Loaded	Total cars Rec'd from Connections
Nov. 30, 1969	3,328,249	1,121,075
Nov. 30, 1968	3,463,819	1,132,178

FREIGHT-TRAIN CARS

● *CP Rail.*—Will lease 400 100-ton, 4,427-cu-ft-capacity covered hopper cars from North American Car (Canada), Ltd. Cars will be used primarily for a movement of potash and grain.

● *November bad order ratio 0.3% higher.*—Class I roads on Nov. 1, 1969, owned 1,439,658 freight cars, 23,830 fewer than on Nov. 1, 1968, according to AAR report summarized below. Bad order ratio was 0.3% higher than last year.

	Nov. 1, 1969	Nov. 1, 1968	Change
Car ownership	1,439,658	1,463,488	−23,830
Waiting repair	78,999	76,666	+ 2,333
Repair ratio	5.5%	5.2%	+ 0.3%

PIGGYBACK

● *Louisville & Nashville.*—Will lease 1,000 40-ft. piggyback dry-van trailers on a full-maintenance basis from Trailmobile Leasing Department of Trailmobile Division, Pullman, Inc Deliveries are expected to be completed shortly after mid-1970. This will almost double L&N's capacity for TOFC service, says President William H. Kendall. For T/M Leasing, which was formed last Jan. 1, L&N's new order is the largest to be received. T/M Leasing will have 3,600 units in service by year-end, exclusive of the L&N order.

● *Penn Central.*—Is acquiring 800 new trailers—300 mechanically refrigerated units and 500 standard vans—from Fruehauf and Strick. The 40-ft-long trailers will be the first Penn Central units to utilize a theft-proof air-operated spring-type door lock. Delivery is to be completed by the end of this year.

NEW FACILITIES

● *Louisville & Nashville.*—Authorized two track construction projects to serve coal mines in Indiana and western Kentucky. Near Clinton, Ind., L&N will rebuild 28,300 ft of a spur track and install 16,936 ft of new track and a 6,300-ft loop track to serve mines of Peabody Coal Co. Coal will move from the mine area in a unit train of shipper-owned cars, 34 miles to a new generating plant being built at Cayuga by Public Service Company of Indiana. Near Madisonville, Ky., L&N will build a 4,500-ft lead track and a 6,300-ft loop track to serve mines of Cimarron Coal Co. Coal will move by unit train, also with shipper-owned cars, to generating plants of Georgia Power Co.

SPECIAL

● *Rail-Trailer Co.*—Will acquire, through its Container Marine division, more than 100 container chassis designed to handle both 20- and 40-ft containers. They will be added to an equipment pool available for leasing to shippers and carriers.

YOU OUGHT TO KNOW

Hours of service reduction gets Senate approval

The U. S. Senate last week voted its approval of a bill that would make it unlawful for a railroad to (1) require its employees to work more than 12 hours unless they have had at least 16 consecutive hours off duty, and (2) to make an employee go on duty or continue on duty without at least eight consecutive hours off duty during the preceding 24 hours. Also, the bill would require that any suit for violation of the new law be filed within two years of the alleged violation. Although the bill had previous House approval, it was returned to the House for some minor changes in language suggested by the Senate.

Forwarder says air freight will double in 5 years

Domestic air freight revenues, which reached $547 million in 1968, will double in the next five years, predicts James F. McCrohan, president of the Air Freight Forwarders Association. McCrohan, who heads Novo Corporation's air freight forwarding operations, said it is conceivable that much of the less-than-truckload freight now carried by transcontinental truckers eventually will be diverted to jumbo jets.

J. A. Van Sant named president of Flex-O-Lite

James A. Van Sant, who is widely known for his work in promoting the railroad and the rail transit industries, has been appointed president of the Flex-O-Lite Division of General Steel Industries, effective Jan. 1. GSI President W. Ashley Gray, Jr., announced that Van Sant will succeed J. Richard Beard, who has resigned. Van Sant was named executive vice president of Flex-O-Lite earlier this year. Prior to that he was a vice president of General Steel

NP spends $1.7 million for Conditionaires

Northern Pacific has begun placing the nation's first fleet of Conditionaire cars in service. The entire fleet will consist of 51 cars and will be used for the bulk shipment of potatoes and other perishable farm products. The $1.7 million order is being delivered at the rate of two cars a day by ACF Industries. The complete fleet is expected to be in service around the first of the year. The new cars carry up to 185,000 lb. of potatoes, which, according to NP, is more than three times the load of conventional cars. Said T. C. Hoff, NP's director of customer service planning: "We're confident the fleet of new cars will help us meet increasing demands for specially equipped, high-volume units needed in major potato producing areas of the nation."

NP fires twice at ICC order on Mainstreeter

In an unprecedented double-barrel response, Northern Pacific has (1) asked ICC to make the Mainstreeter issue (RA, Dec. 15, p. 23) a matter of general transportation interest, and (2) called for ICC reconsideration of its keep-the-train-running order and for oral arguments on the case. The declaration of general transport interest would bring the case before the entire Commission rather than Division Three. And the petition for reconsideration and oral argument includes a listing by NP of nine errors of fact and law that NP says were made by the ICC.

Soo warns snowmobilers of rail hazards

If they fail to choose their snow trails with more discretion, thrill-seeking snowmobilers just might trigger the rebirth of the cowcatcher, or something like it. A number of the flashy snow vehicles were done in last winter on its rights of way, the Soo Line reports. To prevent a repeat of such incidents this season, the Soo is warning snowmobilers to keep their rooster tails off railroad property or else face possible arrest and prosecution. Not only are these snow bunnies endangering their own lives and property, claims the Soo, but this disregard for safety could actually cause death or injury to others, and also lead to costly damage to railroad equipment and cargoes.

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AMF Beaird

Marion A. Scott
N.Y. Air Brake

J. P. McFadden, Jr.
GATX

W. C. Kilrea
Abex

E. F. Heffernan
Budd Co.

Arthur Hoogerhyde
WABCO

SUPPLY TRADE

Lester C. Stephens named vice president of sales, **AMF Beaird, Inc.,** Shreveport, La. He was formerly general sales manager, Marsh Instrument Co., Wilmette, Ill., and general sales manager, Plate & Welding Division, **General American Transportation Corp.,** Chicago.

Marion A. Scott has been appointed western manager of railroad hales **New York Air Brake Co.,** Unit of General Signal Corp., with headquarters at Chicago. He previously served as a field representative in Chicago, St. Louis and San Francisco.

John P. McFadden, Jr. has been named eastern regional sales manager, **Transportation Division, General American Transportation Corp.**

W.C. Kilrea, director of international and new products, appointed vice president, marketing and planning, Railroad Products Group of **Abex Corp. G.M. Baker,** Jr., sales, Chicago, appointed manager of new products, Mahwah, N.J., reporting to Mr. Kilrea. **R.H. Beetle,** vice president engineering, also assumes responsibility for international operations. **A.W. Farrell,** chief engineer, wheels, named director of engineering. **L.E. Hoyer,** assistant chief engineer, wheels, promoted to chief engineer, wheels.

Edward F. Heffernan, Jr., corporate group vice president, **Budd Co.,** Philadelphia, has been given the additional responsibilities of general manager, Railway Division.

Arthur Hoogerhyde has been named director of operations planning, Pittsburgh general office, **Westinghouse Air Brake Co.** He was formerly director of research and engineering, Signal & Communications Division.

Charles M. Heiden has been appointed manager of Advanced Business Development and Support Operations, Transportation Systems Division, **General Electric Co.,** Erie, Pa.

William V. Gilronan has been named general manager, **Page** and **Page,** Portland, Ore. He was formerly vice president of sales and marketing, **T. L. Smith Division, Automatic Sprinkler Corp. of America.**

William G. Glass has been appointed director of railway staff, **Westinghouse Air Brake Co. European Operations** at Brussels, Belgium. **Giorgio Morra** has been named director of marketing research, sales promotion and advertising for the new operation.

William C. Seeds, assistant to president, **Malaker Corp.,** High Bridge, N.J., named vice president and assistant to the president.

Willard Black, formerly associated with the **Southern,** has been appointed general manager, Macon Division, **Transco Inc. W. D. Williams,** also a former Southern employee, appointed shop superintendent.

The Dashaveyor Co. has moved its Los Angeles headquarters and manufacturing plant to larger facilities in the Airport Marina Industrial Park, 5419 McConnell Ave., Cal. 90066.

Donald V. Rentz has been appointed vice president of manufacturing, **Harmon Electronics, Incorporated,** Grain Valley Mo., succeeding **William T. Pinet,** retired.

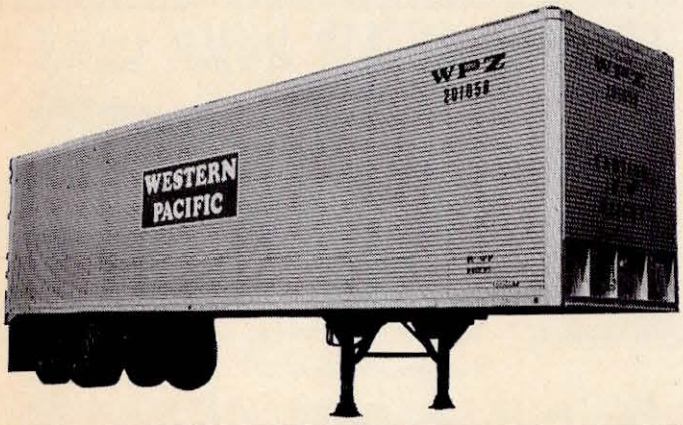
Michael L. Richmond has been appointed general manager—midwest, **Integrated Container Service, Inc.,** at Chicago. Mr. Richmond was formerly marketing manager for GATX Research Division.

George Shedlarski, project design engineer, has been promoted to marketing manager, **Audn Corp.,** Hamburg, N.Y.

Charles M. Jenkins, Jr., has been named Southeastern district sales manager, **Berwick Forge & Fabricating Corp.,** at the newly opened office in Atlanta, Ga.

Hans J. Wefers has been appointed manager — application engineering, Locomotive Department. **General Electric Co.** He will be responsible for product application and economic feasibility studies on electrified railroad systems as well as for catenary and signal and communications equipment.

Kenneth O. Anderson has been appointed manager—maintenance engineering, Service and Maintenance Engineering Section, Locomotive Department. He will be responsible for supporting the depart-



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Circle 29 on coupon page 77

ment's objectives of higher reliability and service and lower operating costs of GE locomotives. Mr. Anderson will work with customers to develop improved maintenance practices, have charge of education and training of customer representatives both at the factory and at railroad locations and organize a unified program of communications with customers on maintenance items.

R. E. Bell Co., St. Louis, Mo., has been appointed special sales representative, railroad applications, for the products of **Krautkramer Ultrasonics, Inc.,** in the south central area of the United States.

Arthur W. McClain has been appointed president of **Republic Carbon Produucts Co.,** an operating unit of the AMAX Fuels & Chemicals Group of American Metal Climax, Inc. From headquarters in Chicago, Mr. McClain will direct the marketing of railway equipment and supplies, anthracite, diesel fuel and lubricating oils, and various kinds of coke.

John F. Brouthers, who joined the **Magor Railcar Division, Fruehauf Corp.** last March, has been named head of the southeastern region office at Philadelphia, succeeding **Fred Eaton,** who retires Dec. 31.

Clinton W. Marsh, plant manager, **Shippers Car Line Division, ACF Industries,** Milton, Pa., has been named general supervisor of car maintenance. Mr. Marsh has been succeeded by **Eugene F. Houser,** assistant to plant manager there.

Robert E. Harmon elected president, **Harmon Electronics Inc.,** Grain Valley, Mo., succeeding founder **Robert C. Harmon,** who will remain board chairman.

John N. Fox has been appoointed manager—railroad sales, **Chicago Pneumatic Tool Co.,** Chicago, **Russell Berg** has been named supervisor of railroad sales—west at Chicago, and **Eldon W. Saltsider,** railroad sales supervisor-east at Philadelphia.

L. R. Beck and **R. D. Fletcher,** district sales respensentatives, promoted to district managers, Central and Northeast Regions, respectively, locomotive field organization, **Electro-Motive Division, General Motors. W. I. Hoffman,** district sales representative, promoted to regional service manager, Northeast Region.

Robert A. Rasmussen has been appointed general manager, Ludington Division, **Jackson Vibrators,** Ludington, Mich.

A new corporate structure has been announced by **Gould, Inc.,** St. Paul, the company which resulted from the merger of **Gould-National Batteries, Inc.,** and **Clevite Corp.** The new company will be reorganized into four operating groups each with its own vice president: Batteries, **Richard B. Loynd;** Electronic Systems and Instruments, **Norman R. Klivans;** Power Components, **Walter L. Longnecker;** Ordnance, **Thomas E. Lynch, Dr. S. J. Begun** has been appointed corporate director of research.

Electro-Motive Division, General Motors Corp., has announced organizational changes. **H.M. Garvey,** district sales representative, Central Region, transferred to rebuild sales. **R.J. Gommel,** district engineer, Southeastern Region, Decatur, Ill., transferred to marine service engineer, New Orleans, La. **R.C. Grant,** senior operating instructor, promoted to market research specialist. **R.M. Jelinek,** sales engineer-export, and **G.A. Youngren,** senior operating instructor, transferred to General Motors Overseas Operations, New York. **G.B. Morman,** market research specialist, named sales engineer—industrial. **W. Patterson,** senior operating instructor, appointed sales engineer—export. **R.R. Trappe,** district engineer, Central Region, Shawnee Mission, Kan., promoted to sales engineer—locomotive.

DIVIDENDS DECLARED

CANADIAN PACIFIC.—$1.60 semiannual, payable Jan. 22 to holders of record Dec. 19.

CANADA SOUTHERN.—$1.50, semiannual, payable Feb. 2 to holders of record Jan. 14.

CHESAPEAKE & OHIO.—$1, quarterly, paid Dec. 20 to holders of record Dec. 1.

DENVER & RIO GRANDE WESTERN.—27½¢, quarterly, paid Dec. 15 to holders of record Nov. 28.

GULF, MOBILE & OHIO.—70c, quarterly; $1.15, extra, both paid Dec. 15 to holders of record Nov. 26; $5 Preferred, $1.25, quarterly, payable June 15, 1970, to holders of record May 25.

ILLINOIS CENTRAL.—$3.50, Preferred, 87½c, quarterly, payable Jan. 1, 1970, to holders of record Dec. 1, 1969.

KANSAS CITY SOUTHERN.—4% Preferred, 25¢, quarterly, payable Jan. 16 to holders of record Dec. 1.

LOUISVILLE & NASHVILLE.—$1, quarterly; $1, extra, both paid Dec. 15 to holders of record Dec. 1.

MISSOURI PACIFIC.—Class A, $1.25, quarterly; Class B, $5, both payable Dec. 23 to holders of record Dec. 12.

NORFOLK & WESTERN.—$1.50, quarterly, paid Dec. 10 to holders of record Nov. 10.

NORTHERN PACIFIC.—65¢, quarterly, payable Jan. 30 to holders of record Jan. 9.

PITTSBURGH & LAKE ERIE.—$1.50, quarterly; $1, extra, both payable Jan. 14 to holders of record Dec. 31.

PITTSBURGH, FORT WAYNE & CHICAGO.—Preferred, $1.75, payable Jan. 6, 1970, to holders of record Dec. 10, 1969.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% Preferred, $1.75, quarterly, paid Dec. 1 to holders of record Nov. 20.

RICHMOND, FREDERICKSBURG & POTOMAC.—$1.75, quarterly; $1.50, extra; 6% and 7% Guaranteed, $3.25, extra, all payable Dec. 22 to holders of record Dec. 12.

SANTA FE INDUSTRIES.—Preferred Capital Stock, 25¢, payable Feb. 2, 1970, to holders of record Dec. 31, 1969; common, 40¢, quarterly, payable March 2, 1970, to holders of record Jan. 30.

SOO LINE.—$1, payable Jan. 27 to holders of record Jan. 13.

SOUTHERN.—70c, quarterly; 20c extra; 5% Preferred, 25c, quarterly, all paid Dec. 15 to holders of record Nov. 14.

SOUTHERN PACIFIC.—45¢, quarterly, paid Dec. 15 to holders of record Nov. 28.

UNION PACIFIC.—50¢ quarterly, payable Jan. 2, 1970, to holders of record Dec. 1, 1969.

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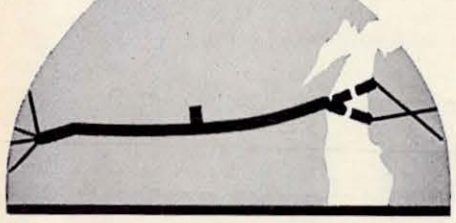

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VIEWPOINT

As we enter a new decade

By Thomas M. Goodfellow
President
Association of American Railroads

International Railway Journal, Railway Age's companion overseas publication, invited railway leaders around the world to comment on how they expect railways to respond to the challenge of the Seventies. This is what AAR President Thomas M. Goodfellow had to say.

American railroads will meet the challenge of the Seventies with new concepts of the way to run a railroad—a fresh approach that recognizes and honors the traditions and glories of railroading's past without chaining itself to outworn customs.

For the greatest challenge to American railroaders and the agencies of government that deal with American railroads is to accept the fact that the past is forever gone, the present forever changing and the future forever demanding.

A good example is the concept of containerization — and its intermodal applications. Containerization has enjoyed great success in the United States, as it has in Europe. The flexibility, security and ease in handling of the "boxes" have led to dramatic changes in shipping, packaging and storage.

But, in the United States, we are prevented from gaining as full a benefit from this new concept as have many of our colleagues in other lands. The law inhibits common ownership of diverse transportation modes.

This bars the kind of "total transportation company" that could provide shippers and the public with the mode—or combination of modes — best suited to their specific needs.

I'm confident the law will change. It must change, for containerization cries out for intermodality the way the automobile once cried out for good roads.

In the meantime, railroads in America are seeking to trim down—to cut away what is superfluous and concentrate on the areas where we can fill the greatest need with the greatest efficiency. And here, too, a ghost from the past materializes to put its hands on the throat of a living industry.

Long-haul passenger service is dead. It was killed by the jet airplane and the family automobile. Our European friends are taking longer to come to the wake because of fewer automobiles and because many of Europe's railroads are government-owned.

But figures show that they, too, are beginning to find passenger service a costly and questionable proposition. Questionable because, even on non-profit systems, money spent in a losing cause could have been better absorbed in new equipment and/or lower rates.

This is not to say that passenger service is dead in all its forms. The need for, and use of, commuter service is growing. American and Japanese experience has shown great promise for speedy rail service in high density corridors.

But if we are to serve the future, we must recognize what is—and what isn't—relevant to it. Passing a new law will keep a train running, but it won't make people ride it.

Railroads in the United States have different problems, and sometimes different missions, from those of our colleagues in other lands—even close neighbors like Canada and Mexico.

But we are bound by a common conviction—that the steel wheel on the steel rail is still, and will continue to be, the safest, most efficient, most economical way to move the goods people need from the place where they are to the place where they are needed.

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